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29 June 2016

The Hon. Robert Armstrong MLC
Inquiry Chair
Sessional Committee Government Administration 'A'
Parliament of Tasmania
Hobart Tasmania 7000

By email: deer@parliament.tas.gov.au

Dear Mr Armstrong,

Re: Inquiry into the wild Fallow deer population in Tasmania

Thank you for your letter dated 6 April 2016 inviting me to make a submission to the Legislative Council Government Administration Committee 'A' in relation to the subject inquiry.

My submission accompanies this letter. It includes direct reference to DPIPWE officers by name and should not be considered suitable to be made public in this form. I have also provided a version with names redacted if the Committee has a policy of making submissions publicly available.

In addition to my written submission I request permission to make a verbal one to the Committee. This will assist in addressing some of the complexities of the subject and provide committee members with the opportunity for me to clarify aspects they wish to raise with me.

I applaud the initiative that you have taken in establishing the inquiry. Should I be able to be of further assistance to the Committee please do not hesitate to contact me.

Yours sincerely

Simon Cameron

Legislative Council

Government Administration Committee A

Inquiry into Wild Fallow Deer

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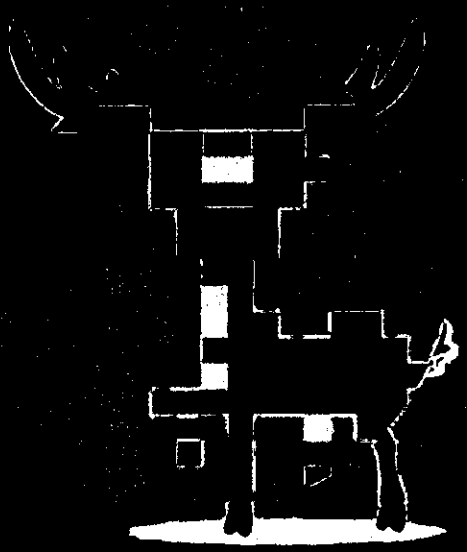

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Submission by Simon Cameron

June 2016

LEGISLATIVE COUNCIL
GOVERNMENT ADMINISTRATION COMMITTEE A

INQUIRY TERMS OF REFERENCE

In accordance with Sessional Order 4 (14) Government Administration Committee A has this day resolved to initiate an inquiry on the following Terms of Reference:

To inquire into and report upon the wild fallow deer population in Tasmania with particular reference to:

- Environmental impacts on public and private land;
- Any impact on commercial activities on private land;
- The partly protected status of fallow deer under the Wildlife (General) Regulations 2010;
- Commercial opportunities for the use of wild population stocks; and
- Any matters incidental thereto.

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Introduction

The Submission

The submission is made by Simon Cameron, the owner of the property, "Kingston", in Tasmania's Northern Midlands. The farm produces traditional superfine wool. It is also known for its natural values and the owner's commitment to the preservation of these.

Wildlife management at "Kingston" is an important factor in enterprise viability. Four main species, wallaby (Bennetts and Rufous), brush tail possum, Forester Kangaroo and Fallow deer, all regulated, have to be controlled. The first two currently have unrestricted culling. The third, Forester Kangaroo, is restricted, perhaps with justification given that it is an endemic species for which there was genuine concern for its survival in the 1970's. Never-the-less its resurgence has come at a cost to the farm. Wild Fallow deer, an exotic and invasive species, is regulated and highly controlled. It is a burden both financially and as it impacts natural values.

The estimated cost to the farm, a small business, attributed to the impact of deer is in excess of $35,000 per annum, more than 10 per cent of its revenue and sufficient to threaten its future. The fact that "Kingston" is just 0.15% of the Department of Primary Industries, Parks, Water and Environment's (DPIPWE) estimate of Tasmania's deer range allows the Committee a reference point for calculating the impact of the species as a whole.

The submission addresses each of the five aspects listed in the terms of reference. It is the author's view that Tasmania's current deer policy fails to adequately consider the financial, environmental or social impacts of the species.

Background

The status of wild Fallow deer in Australia

Queensland, South Australia and Western Australia have already declared deer a feral pest.

In New South Wales the Natural Resources Commission (NSW NRC), in March 2016, released its draft Pest Animal Management Review. It reports that deer are currently managed under outdated, restrictive arrangements as a game and livestock animal, yet it is recognised as the most important emerging pest animal threat. It recommends that deer be managed as a pest animal.

Interestingly, the Sporting and Shooters Association of Australia stated in its submission to the NSW NRC issues paper:

"although currently listed as game species, many members believe that deer should also be included as an invasive pest species ... deer numbers are not being controlled to the extent they were prior to the declaration of deer as game".

The wild deer related recommendations from the NSW NRC review are listed in the Appendix.

In Victoria wild deer are still a regulated game species with only Sambar deer listed as a threat to biodiversity under the Flora and Fauna Guarantee Act 1988 at this stage. However landholders are allowed to control deer on their own land to the extent they require, a change that was implemented in 2013.

Tasmania accords wild Fallow deer partly protected status under the Wildlife (General) Regulations 2010 (the Regulations), sub legislation of the Nature Conservation Act 2002 (NCA). In the most recent review of the Regulations there was an increase in protection for wild Fallow deer and harsher penalties for breaches of the Regulations. The policy of successive governments has given priority to recreational hunting without due consideration to the impact of the species be it commercial, environmental or social. This has been a fundamental cause of the growth in population and range and the major imbalance between acquiescing to the wants of recreational hunters and addressing the needs of land managers be they private or public.

In spite of their protected status deer have been on the pest radar for some years. In the 2009 Tasmanian State of the Environment Report, Fallow deer were listed as a 'key' environmental pest. In 2013 the DPIPWE conducted a risk assessment (Risk Assessment: Fallow deer (Dama dama) December 2013) that in its conclusion gave the species an extreme risk pest rating. In reaching this finding DPIPWE determined that once the species was introduced there would be an extreme risk of it becoming established. This has already happened. Once established, according to the assessment, there is an extreme risk that it will become a pest. In parts of Tasmania this has also already happened. The assessment scoring to determine the rating awarded Fallow deer 28 points out of a maximum of 37. Anything above 18 is classified as "extreme" so the determination cannot be considered to have been border line.

In spite of the extreme risk pest rating there has been no appetite for change by those with the power to act. The position of the current Minister for the Environment is that he is only likely to consider proposals for change to policy or regulation if there is broad stakeholders support. As the current situation with wild Fallow deer in Tasmania, the population and range growth and the potential for both to continue rapidly, has been caused by the excessive influence of one stakeholder group and the lack of representation by others, changes to the advisory and administration structure are required urgently.

In 2008 the Department of Agriculture and Food, Western Australia (DAF WA) conducted a Fallow deer risk assessment for Australia as a whole. It used the same methodology as DPIPWE. This assessment determined Fallow deer an extreme risk pest with a score of 29, very similar to that derived by DPIPWE. [In both instances the risk assessment model used was developed by Dr Mary Bomford, Federal Bureau of Rural Sciences.] The DAF WA report is endorsed by the Vertebrate Pest Committee, an advisory body under the Commonwealth-State Natural Resource Management Standing Committee.

In 2014 DPIPWE considered and rejected an application to import fallow deer into Tasmania. The Tasmanian Farmers and Graziers' Association (TFGA) submitted that the application be refused.

"Our submission [December 2013] reflected the strong view by farmers in many areas of the state that deer are considered to be an invasive pest species which should be eradicated," said TFGA.

"This view is reinforced by readily available evidence – including the expert report on the application." (From TFGA Fastnews, 17 April 2014. The expert report referred to is Jensz, K. and Finley, L. (2013), Species profile for the Fallow Deer, Dama dama. Latitude 42 Environmental Consultants Pty Ltd. Hobart, Tasmania.)

As far as is known, the main statement about the management of wild deer in Tasmania is found in the *Statement of current management practices for Tasmanian wild fallow deer,* DPIPWE - February 2011 (Deer STOMP). Its introduction states:

The objective of management is to allow the benefits of wild deer, such as hunting, to be realised while limiting their negative impacts on crops and natural values. Management actions are aimed at balancing deer populations with their habitat, land use and hunting interests. The Tasmanian Government manages the wild deer populations to provide benefits for a wide range of interests including land owners, hunters, conservation and other interest groups. The conservation status of wild fallow deer and the management objectives are reflected in the Nature Conservation Act 2002 and its regulations.

While the opening paragraph may give the impression of an inclusive approach to deer management the body of the document demonstrates the policy bias towards recreational hunting and against farmers and other land managers. The quoted paragraph has the only reference to "conservation" as a stake holder. As far as is know no "conservation" input was sought for the Deer STOMP.

It should be noted that the Deer STOMP is not factually correct in its reference to the Regulations.

The deer population in Tasmania

When pressed on the species goal for Fallow deer you will be told by DPIPWE's Wildlife Management Branch (WMB), the body responsible for deer management, that it is to ensure a sustainable population is maintained. What this sustainable population is the WMB refuses to define in numerical terms nor in terms of the cost to the community including those who have to host them.

According to the Deer STOMP *the fallow deer population has increased steadily since its introduction with conservative estimates in the 1970s of 8,000 animals (Wapstra 1973), estimates from a limited state-wide survey in 1990 indicating a population of 16,000 to 20,000 (DPIPWE unpublished report 1990). By the mid 2000's it was estimated that the population had reached 30,000, although it is likely that the herd has declined to in the order of 20,000 in the late 2000s as a consequence of prolonged and severe drought and culling. Evidence for this decline is available in anecdotal reports of reduced observation rates, reduced fallow deer density recorded during regular forester kangaroo surveys, and declines in the number of bucks harvested by recreational hunters.*

At best the statement that the deer population was in decline in the late 2000s is selective use of the truth. The regularly surveyed range known as Nile, between 2002 and 2011, showed an increase of 94% (an increase from 4.7 to 9.1 deer per km^2) and the range Fordon, between 2004 and 2011, 107% (an increase from 3.2 to 6.7 deer per km^2). An understanding of the motivation behind disregarding its own survey results and the signals from land holders will go some way towards indicating why the position of wild Fallow deer has deteriorated to the point that it is now appropriate to have a parliamentary enquiry.

It is the author's view that the wild Fallow deer population in Tasmania has been consistently significantly understated to create the impression that the species is being effectively managed and to discredit those who have attempted to draw attention to the growing issue. The Potts et al study, *Predicting the future range and abundance of fallow deer in Tasmania, Australia*, struggled to find a

reliable number as the starting point for its deer abundance predictions and eventually settled on 40,000. The truth is that no one knows. To sustain a culling rate of about 20,000 per annum, the estimate for 2015, and still be growing and spreading, the population has to be 100,000 or more.

The outcomes of the current wild fallow deer administration are not even in the best interests of recreational hunters as a whole. Anecdotal evidence is that about 30% of deer licences are sold to people with nowhere to hunt. A bi-product of a meaningful review of the administration of wild Fallow deer could be an improvement for hunters as a whole. The key to this will be addressing the long ignored needs of landholders.

Recommendations

The following is a summary of the submission's recommendations. They are also found in context in the sections from which they are drawn.

Recommendation 1`

That Wild Fallow Deer (Dama dama) be removed from Schedule 4 Part 2 of the Wildlife (General) Regulations 2010 and the Secretary (DPIPWE) be requested to recommend to the relevant Minister to declare Fallow deer/ Dama dama vermin under the Vermin Control Act 2000.

As an interim and immediate measure landholders should be able to be granted open crop protection permits for all wild Fallow deer similar to the crop protection permits now available for wallabies and possums.

Recommendation 2

That responsibility for the control of wild Fallow deer is transferred from the Wildlife Management Branch (DPIPWE) to Biosecurity Tasmania.

Recommendation 3

That the Tasmanian Deer Advisory Committee be reconstituted to genuinely and equitably represent the interests of stakeholders in the control of wild Fallow deer.

Recommendation 4

That land holders be allowed to use alternate methods such as trapping and poisoning for deer control on their own land.

Recommendation 5

That landowners with a deer population in excess of 2.5 per ha will, if requested by a neighbour, be required to reduce the population or provide a deer proof boundary fence sufficient to prevent deer from entering the requesting neighbour's property.

Recommendation 6

That in the event of the partially protected species status for wild Fallow deer being retained those land holders who determine that their land is not available for recreational hunting and who actively

pursue a deer minimisation strategy should be compensated for the continued presence of deer on their land.

Recommendation 7

That the Wildlife (General) Regulations 2010 be reviewed and that, as a minimum, the uncertainty that exists in relation to regulations 21 and 26 is removed, an appeal mechanism is introduced for instances where the Secretary is deemed by the applicant to have refused to grant a crop protection permit inappropriately and the mandatory five year ban for a breach of the Regulations is removed.

[This recommendation should be considered whether or not Recommendation 1 is accepted.]

Recommendation 8

That details of procedures related to the administration of the Regulations be compiled and made publicly available.

Recommendation 9

That in known deer ranges roadside warning signs are placed to alert drivers to the possible presence to deer.

Reference Item One - Environmental impacts on public and private land

Commentary from Australian and overseas research and observation is submitted to alert the Committee to the environmental impacts, many of which are probably imperceptible at this stage, that are taking place in Tasmania as a result of the presence of wild Fallow deer.

Dolman and Wäber (2008) provide the following species ecosystem impact summary.

"Deer are highly adapted large herbivores. As ruminants with multi-chambered stomachs and microbial digestion of cellulose they can utilise relatively low-quality forage. Consequently, deer often have a profound impact on ecosystem structure and act as keystone species in many forest systems. Deer herbivory can determine the structure and composition of forest herb layers, sub-canopy and ultimately forest canopies through their impacts on regeneration, generally with an increase in unpalatable species or those resistant to browsing. In turn, this can have cascade effects on biodiversity, including songbird abundance and species composition, nest predation rates, the abundance and density of invertebrates and the abundance and seed predation activity of small mammals."

T Rawinski, (2008) quotes two pertinent observations, firstly from S Horsley, US Department of Agriculture Forest Service, 2004 p4:

"The current density is producing devastating and long-term effects on forests. Foraging deer "vacuum up" the seedlings of highly preferred species, reducing plant diversity and in the extreme, creating near mono-cultures. It could take decades or even hundreds of years to restore forests. . . . Deer have the capacity of changing forest ecology, by changing the direction of forest vegetation development. It doesn't matter what forest values you want to preserve or enhance - whether deer hunting, animal rights, timber, recreation, or ecological integrity - deer are having dramatic, negative effects on all the values everyone holds dear."

and, secondly from former New York State Botanist, Richard S. Mitchell describing landscape-level impacts of deer in the Hudson Valley (Mitchell 1997, p. 3)

"After personally exploring hundreds of miles, seeking every habitat in Harriman State Park and surrounding areas, I can tell you first hand that the vegetation there has been devastated by deer. Nearly every green thing has been nipped, often to the ground. Orchids and other rare herbs have shown a steep decline since the 1940s, and serious forage damage is evident throughout, from dry ridge-tops to trampled wetlands."

Dolman and Waber (2008) comment that by altering interactions among competitive plants, compromising regeneration, affecting community structure, facilitating weed invasion, among other impacts on plants, deer can have cascade effects on biodiversity with research overseas documenting impacts on songbird abundance and species composition, nest predation rates, the abundance and density of invertebrates and the abundance and seed predation activity of small mammals. Cote et al (2004) confirm deer's status as 'ecosystem engineers'.

Kirby (2001) noted that by browsing on tree seedlings, shrubs and climbers, deer tend to reduce stem densities, limit height growth and reduce foliage density, creating a more open understorey.

Light penetration to the ground can increase, providing more plant cover close to the ground. Deer tend to reduce the diversity of seedlings, and that effect is greater at higher densities of deer.

Major impacts of deer on the ground flora of lowland woods in Britain have become common, often with a shift to grass-dominated vegetation. However, for other plants, reductions in successful flower and seed production could have long-term effects on the survival of herbs in a wood.

Are we prepared to learn from others or just repeat their mistakes?

We know from the experience of others that Fallow deer are eco system changers. Nowhere in the world where Fallow deer have been introduced have they not done environmental damage. In addition to the overseas experience, Australia's ecosystems have evolved without large, hooved herbivores. The NSW Scientific Committee determined that herbivory and environmental degradation caused by feral deer (including Fallow deer) is a key threatening process. A pertinent statement from its final determination is:

".....documented impacts of feral deer in conservation reserves include overgrazing, browsing, trampling, ring-barking, antler rubbing, dispersal of weeds, creation of trails, concentration of nutrients, exposing soils to erosion/accelerating erosion, and the subsequent degradation of water quality in creek and river systems.

"The seriousness of impacts is likely to be dependent on the population density of deer but, because of their cryptic nature, early signs of damage may not be detected or may be ignored."

The NSW National Parks & Wildlife Service Central Coast Hunter Range Region Pest Management Strategy 2008-2011 describes wild deer as "one of the most important emerging pest animal threats in NSW".

The Invasive Species Council's Key Threatening Process Application (ISC 2011) concludes that the information about the environmental impacts of feral deer in Australia is inadequate. However, the fact of deer as large exotic ungulates introduced into a country that previously had no ungulates, the weight of evidence from overseas about damaging deer impacts, and the growing accumulation of threats documented by biologists in Australia as deer populations increase lead to the conclusion that to delay more concerted action on feral deer is to guarantee biodiversity losses and environmental degradation.

In the following section the submission provides more specific comments on the environmental impacts of deer drawn from a range of sources including pest risk assessments, the application to have deer listed under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBCA) as a key threatening process and relevant scientific papers.

Risk Assessment Evaluation

The DAF WA Fallow deer risk assessment for Australia is worthy of detailed consideration. In Section C5. Overseas environmental pest status (Has the species been reported to cause declines in abundance of any native species of plant or animal or cause degradation to any natural communities in any country or region of the world?) the assessors gave Fallow deer maximum points (as did the DPIPWE assessment).

Section C6. Climate match to areas with susceptible native species or communities, again both the DAF WA and DPIPWE assessors gave Fallow deer the maximum score, 5 out 5.

A list of susceptible Australian native species and natural communities that could be threated is included in the DAF WA pest risk assessment. Additions to the EPBCA since the assessment was prepared such as the Tasmanian Lowland Grassland Communities should also be included.

Environmental impacts

Details of specific environmental impacts caused by deer include the following:

Physical damage caused by trampling, wallowing, thrashing and rubbing

- Deer hoofs can damage delicate plants, sensitive environments such as wetlands and moss beds, and nests.
- Male Fallow deer create bare scrapes for rutting purposes, trampling the ground and removing vegetation.
- Male Fallow deer may inflict considerable damage on individual trees by thrashing them with their antlers, both in aggressive display during the rut and in cleaning velvet from newly grown antlers in late summer. This is a major problem for the critically endangered species in a deer range. They can ringbark and kill trees, exposes them to wood borers and fungal pathogens, reduce foliage and compromise the health of the tree.
- Some common woodland plants are damaged by trampling, so that their abundance is reduced along deer paths or in areas where deer congregate. Hoof-scraping may destroy bulbs, or bring them closer to the soil surface where they are more vulnerable to attack by animals such as slugs.
- Ground dwelling or nesting birds may be threatened by trampling of eggs and/or nests by Fallow Deer and plants may be threatened by trampling or grazing by deer.

Loss of plant biomass

"Feral deer eat large volumes of plant matter. The sheer volume of herbivory can have substantial impacts on ecosystem structure and processes, with implications for birds and other wildlife that depend on that particular vegetation structure" ISC (2011)

Once an overabundant deer population has been reached, the biomass deer consume becomes large relative to the vegetation available for consumption, particularly in low-productivity environments such as forest understories. Thus deer are likely to reduce vegetation productivity and decelerate nutrient cycling in forest ecosystems.

Compromised regeneration (Keith and Pellow 2005)

- Destruction of seedlings: Deer often target seedlings and saplings and tree species are most vulnerable at this stage.
- Deer herbivory may be of particular concern after fire: 'bushfires expose more seedlings to browsing by deer because they release seeds of many species from dormancy or canopy storages'

- Deer can also prevent seedling establishment by destroying thickets that act as nursery sites or regeneration refuges
- Deer browsing on seedlings can also compromise revegetation projects
- Deer may consume all reproductive material of orchids or lilies in a single visit.

A practical example of the Tasmanian deer policy impact on regeneration projects is found in the inability to undertake hill top regeneration at "Kingston". As on many farms hilltops have been heavily grazed and used as camps by domestic livestock as well as wild animals. These are important areas for regeneration activity. It requires excluding all animals for a period. The cost-effective fencing method for achieving this is a temporary electric fence except that it will not withstand deer. It could be used if there was continuous access to CPPs as pressure could be maintained on local deer populations but with CPPs for approximately 50 per cent of deer, females, only being available for seven months a year and for adult males about the same. The use of deer proof fencing is neither affordable nor appropriate for this type of project.

Facilitating other invaders

- If introduced deer displace native species, important knock-on ecosystem effects may occur, with the potential to disrupt plant spatial dynamics and regional species persistence
- Feral deer (and other feral herbivores) can facilitate weed spread by creating gaps in vegetation for weed germination and by dispersing weed seeds. Stag scrapes have the same potential.(ISC 2011)
- The role of deer and other ungulates as endzoochorous seed dispersers is now increasingly recognised. (Dolman and Wäber, 2008)
- Pathogen spread - One environmental concern is that deer could spread the dieback pathogen Phytophthora cinnamomi, which is listed as a key threatening process. ISC (2011)

There are numerous references to declines in biodiversity.

Deer are selective feeders, a characteristic that can modify the relative abundance of species and alter the composition and dynamics of plant communities (Cote et al 2004). This may facilitate an increase in less preferred species thus changing the balance. Once the decline has taken place even low numbers of deer will perpetuate it.

Reported in ISC (2010) work by Moriaty reported a study that found "substantial (and significant) differences between plots with low deer density and high deer density. Plant diversity was reduced by 27 to 54% .....".

Feral herbivores together constitute one of the most severe threats to Australian biodiversity. In NSW, they are known to pose a threat to >23% of threatened species and when domesticated herbivores are included, 45% (Coutts-Smith et al. 2007). Deer share many of the attributes of other threatening herbivores and are likely to substantially increase the number of threatened species as they increase and spread. ISC (2010)

Studies into the impact of deer have used a series of islands in the Haida Gwaii group, Canada, that provide a gradient of browsing history that encompasses free of deer, short browsing history (<20 years) and long browsing history (> 50 years).

In one study by Allombert[a] (2005) into the impact on insects it is reported all groups of insects decreased in abundance with increasing browsing history. Effect of browsing history was significant for all orders except one. Total insect abundance was reduced almost threefold on islands with a short browsing history and more than eightfold on islands with a long browsing history.

Deer directly affect primary consumers by removing their food resources and triggering a reduction of secondary consumers that prey on them. ..... Such reductions most likely affect groups such as insectivorous songbirds and insect-pollinated plants.

In a second study Allombert[b] (2005), this time into songbirds, the findings included a total species richness (the number of species) decrease of 38% between deer-free islands and islands with a long browsing history and abundance (population per species) by 51%. Within this was a 93% decrease in the abundance of species with a strong dependence on understorey vegetation. Deer browsing history did not impact species not dependent on understory vegetation.

In their conclusion the authors expressed the view that the role of deer abundance in explaining negative population trends in forest songbirds is probably still under-estimated.

Fallow deer may impact other fauna. For example where Fallow deer have been introduced on Little St Simon's Island, Georgia, in the United States, the native White-tailed Deer has disappeared (Long 2003). The ability of Fallow deer to replace other species was also reported by Focardi et al (2006). In this case the victim was indigenous Roe deer.

Deer also have the potential to compete with Tasmanian native animals. A study of the dietary overlap between Fallow Deer and Forester Kangaroos (Macropus giganteus) in Tasmania found that there was a significant overlap in mid-winter, when food shortages were at their greatest, and that the deer had much wider feeding range than Forester kangaroos (Duncan 1987) as cited in (Moriarty Unpublished). ISC (2010)

In the ABC Background Briefing program (September 2009), Deer Pests, several Victoria tree species were noted as being severely impacted by deer. These included Cherry Ballard, Yellow Wood and Mutton Wood. These and others like them directly impact biodiversity.

Other impacts

Deer also alter the pattern of nutrient cycles through consumption of material in some areas and dunging in others.

A double edged impact of deer is related to seed spread including via the distribution of seeds that have passed through the gut, of seeds on the coat or in earth on the hooves. As this can happen with native flora so it can with weeds.

Keith and Pellow Research

The most comprehensive Australian study is the study of Rusa deer in the Royal National Park, NSW by David Keith and Belinda Pellow (2004). (Rusa deer are a larger animal than Fallow deer. As such their per head food consumption will be greater and destructive behavioural characteristics such as

tracking and trampling may be more pronounced. Biosecurity Queensland's pest animal fact sheets provide the similar production loss and environmental impact information for the two species.)

The main findings of the study were:

- The population increased rapidly after the 1994 fires, from approximately 500 to between 2,500 and 2,700 by 2001
- Deer herbivory has its largest impact by interrupting two major life cycle processes. Firstly the impact on seedlings, less able to recover after defoliation; secondly, impact on the viability of plant populations through a reduction in seed production; and, thirdly, the survival and growth of established plants
- Deer consume a wide variety of plant material including young and old foliage, branchlets, bark and reproductive material of a large number of plant species from a broad taxonomic spectrum (70 plant species from 29 plant families)
- Impacts on soil and vegetation structure with the greatest impact in wetlands
- Ability to cause significant damage to plant species in a short time
- Prevent the growth of individual plant canopies above browse height
- Browsing may lead to the transformation of forest understory that could lead to reduced habitat suitable for a range of vertebrate and invertebrate fauna
- Reducing deer density may slow or reverse effects of deer herbivory
- Fire management and control of deer after fire are likely to be crucial in managing impacts of deer herbivory on native vegetation.

There are numerous other reports of the impact of wild deer should the Committee wish to review them.

Environmental benefits

The DAF WA risk assessment (2008) does note a benefit which it is only fair to include.

Invertebrate groups that benefit from deer include dung beetles, external and internal parasites, and species dependent on carrion. Three species of Dung Beetle (Aphodius spp.) with a limited range are known to occur in woodlands and use deer faecal pellets. There are also 13 rare species of carrion feeding beetles (mostly Sexton and Rove Beetles, Nicriphorus spp., Silpha spp., Sphaerites spp., Aleochora spp., Omalium spp.), that are known to occur in woodlands. With the decline in extensive grazing, especially in woodland habitats, both dung and carrion feeders are now likely to be very dependent on deer.

Recommendation 1`

That Wild Fallow Deer (Dama dama) be removed from Schedule 4 Part 2 of the Wildlife (General) Regulations 2010 and the Secretary (DPIPWE) be requested to recommend to the relevant Minister to declare Fallow deer/ Dama dama vermin under the Vermin Control Act 2000.

As an interim and immediate measure landholders should be able to be granted open crop protection permits for all wild Fallow deer similar to those now available for wallabies and possums.

The Tasmanian Wilderness World Heritage Area (TWWHA) is a specific area of concern in relation to the increase in deer activity. The Locke report, The Distribution and Abundance of Fallow Deer in the Central Plateau Conservation Area and Adjacent Areas in Tasmania, published in 2007 by DPIPWE confirmed the presence of deer. It recommended follow-up studies which, as far as is known, have never been undertaken. Neither has there been any attempt to keep deer out of the TWWHA. The contrary would appear to be the case. In this year's edition of Game Tracks there is reference to consideration being given to allowing additional recreational hunting in parts of the TWWHA. What does this tell us? It tells us that there are growing numbers of deer in there and it tells us that the Government does not see the need to remove them.

Natural heritage is an important Tasmanian asset and is well documented in the DPIPWE report, Securing Our Natural Advantage, the Natural Heritage Strategy for Tasmania 2013 – 2030. In spite of this the current policy for the management of deer puts the future of parts of this asset at risk.

Why is the Government ignoring the DPIPWE's finding (as well as that of others) that, once established, there is an extreme risk that Fallow deer will become a pest? Perhaps it is because the administration of wild Fallow deer is heavily influenced by the Tasmanian Deer Advisory Committee, a body with a recreational hunter bias even though notional farmer and forestry representatives are included. It has no input from those who manage their land for conservation purposes such as the Tasmanian Land Conservancy, the second largest private land owner in Tasmania, nor from those with scientific knowledge of the issues.

The management of wild deer in Tasmania lacks effectiveness for several reasons. Apart from the pro-recreational hunter bias the management of deer and the management of vegetation remains divorced, and this situation hampers the ability to manage them jointly. Their management occurs in different units with conflicting goals. The lack of understanding (acceptance?) of the impact of deer is another factor. As Moriarty (2004) stated:

"It is clear that the lack of fundamental knowledge of the ecology and impacts of wild deer in Australia is one of a number of factors obstructing the effective and targeted management of these species."

Recommendation 2

That responsibility for the control of wild Fallow deer is transferred from the Wildlife Management Branch (DPIPWE) to Biosecurity Tasmania.

Recommendation 3

That the Tasmanian Deer Advisory Committee be reconstituted to genuinely and equitably represent the interests of stakeholders in the control of wild Fallow deer.

Reference Item Two - Any impact on commercial activities on private land

Primary producers are the platinum sponsors of recreational hunting in Tasmania and yet few have any say in relation to deer control. None are able to legally manage deer on their land to the extent they may need to. The issue has been recognised for many years but even organisations such as the Tasmanian Farmers and Graziers Association (TFGA) have failed to make an adequate case for those on whom the presence of deer is an ever-increasing impost.

Risk assessment evaluation

In the pest risk assessments, using the Bomford methodology, the two main criteria against which to judge wild Fallow deer's impact on primary production are C7. Overseas primary production, and C8. Climate match to susceptible primary production. In the former which considers evidence of the impacts in other counties, both the DAF WA and DPIPWE scored the species 2 out of a maximum of 3 classifying it as a moderate pest for primary production in any country or region. More importantly for C8 which relates deer to its potential range in Australia, both gave the species maximum points, 5 out of 5.

For criteria C8., climate match to susceptible primary production, (sheep, cattle, timber, cereal grain, oilseed, grain legume, other fruit, vegetable, nut, other livestock, and other horticultural industries) in which a weighted score by commodity value, potential commodity impact and climate match is calculated. The desk top analyses confirm what farmers know and have been forced to deal with for a number of years.

Cost and Revenue Factors

The cost of lost primary production

Biosecurity Queensland, Feral fallow deer, Pest Animal Fact sheet states:

"Wild deer are opportunistic and highly adaptable feeders that both graze and browse. Their diet is largely determined by what is locally available, but because they require a diet twice as high in protein content than cattle - and with significantly higher quantities of digestible vegetable matter - they will normally feed selectively on the highest quality plants in a pasture. Because of this, deer can impose substantial costs on primary producers.

"Wild deer have been reported to cause damage to a wide variety of agricultural crops, pastures and forestry plantations through competition with cattle and other livestock for pasture."

If the Tasmanian deer population is 125,000, the author's estimate, the food consumption is the equivalent of about 225,000 kilos of grass and other vegetable matter per day (using a 1.8 dry sheep equivalent (DSE) conversion ratio). Perhaps a conversion to large round hay bale equivalents is easier to visualise. It would be in the order of 644 per day or 235,000 per annum. 125,000 deer equate to 225,000 sheep, approximately 15 large sheep enterprises.

At a production cost of $30 per unit 235,000 round bales are worth $7 million. The cost to buy in hay is double this and even more when there is a shortage.

As well as consuming crops deer will damage or destroy them by trampling, digging, thrashing or pulling them out of the ground as is the case with recently planted crops or renovated pastures.

Deer travel long distances, browsing in some areas and camping in others spreading weeds as they move about. Rut holes made by stags damage pasture in developed paddocks and promote weed growth when occurring in the bush or on native grasslands.

The cost of livestock welfare

Not enough is known about the threat to Tasmania's livestock industry from deer. More is known elsewhere and knowledge on the subject is building. The following is a quote from a UK publication:

"Diseases carried by deer include internal parasites such as liver flukes, lung worms and bowel worms; bovine tuberculosis, foot-and-mouth disease, bluetongue, red water fever and Johne's disease. The potential for deer to transmit these diseases to livestock depends on the species of deer and the disease in question. For example, fallow deer pose the greatest risk of disease transmission because they graze in pasture and congregate in feeding sites." *Postnote February 2009* Number 325 page 3.

In "Wild deer as a source of infection for livestock and humans in the UK", Bohm et al (2007) notes a number of diseases carried by deer including Bovine viral diarrhoea virus (BVDV). The same authors confirm the association of deer with Johne's disease.

"Many bacterial pathogens of deer, which have the ability to survive for extended periods in the external environment, such as Salmonella spp. (Murray, 1991) and Mycobacterium avium subsp. Paratuberculosis (Map) (Whittinton et al., 2004), are transmitted via the faecal oral route. Both intra- and inter-specific transmission of Johne's disease, caused by Map, occur via the ingestion of contaminated faeces. Young animals, especially neonates, are most susceptible to the disease (Williams, 2001). As a consequence, sheep and beef systems in which animals lamb and calve outdoors are at greatest risk, since the young are exposed to environmental sources of the disease at an early age. Indeed, the presence of deer on a farm was the main factor associated with Johne's disease in livestock during a questionnaire survey of English dairy farms."

Jesser (2005) tables the following list of endemic and exotic parasites and diseases carried by deer:

Endemic	Exotic
Cattle tick (Boophilus microplus)	Screw-worm fly (Chrysomyia bezziana)
Leptospirosis (Leptospira spp.)	Surra (Tryanosoma evansi)
Johne's disease (Mycobacterium avium paratuberculosis) Ovine Johne's disease (OJD) Bovine John's disease (BJD)	Brucellosis (Brucella abortus)
	Bovine tuberculosis (Mycobacterium bovis)
	Tissue worm (Elaphostrongylus)
Yersina (Yersina pseudotuberculosis)	Louping ill
Malignant catarrhal fever (MCF) (Gamma herpesvirinae)	Rinderpest
	Foot and mouth disease (FMD)
	Bluetonge
	Vesicular stomatitis
	Rabies
	Chronic wasting disease (CWD)

In his view "there is no doubt that wild deer can impose costs on primary producers through the damage they cause and that if deer or other feral animals became involved in an exotic disease outbreak they could greatly extend the time taken to achieve disease-free status".

Dolman and Wäber (2008) quote several sources supporting the view that introduced deer species may act as reservoirs and vectors for parasites and infection disease.

If deer can carry and spread the disease noted above perhaps they can others as well. As yet there is no definitive evidence that deer spread foot rot. Farmers are being forced to wait until it is proven before action is taken.

There is no Tasmanian research on the impact of the presence of deer in worm management of livestock. There is circumstantial evidence that de-stocked paddocks in which deer remain active are not effectively cleansed during grazing rotation. This is consistent with overseas research. Failure for this taking place leads to livestock health issues slowing weight gain or even causing weight loss. Ewe fertility may be impacted as well as wool and meat production.

The author sought permission to lower the deer population on "Kingston" to reduce the risk of OJD, Ovine Johne's Disease, a wasting disease that impacts sheep. Fallow deer are established carriers of the Bovine variant of the disease but it is not yet established for the ovine one. In Red Deer, yes but Fallow not yet. The advice from Dr Whittington (acknowledged by a peer scientist as a world authority on Johne's Disease), University of Sydney, was that given the right conditions there is no reason that Fallow deer would not be infected and thus carriers and spreaders of the disease. His opinion was ignored in the facile response the author received to his request from DPIPWE.

The potential impact of a biosecurity failure

Deer are a growing biosecurity risk as they move in increasing numbers freely across an ever increasing territory. As noted above the species is a confirmed carrier of a range of diseases that have the potential to impact domestic species such as sheep and cattle.

The March 2014 edition of the TFGA magazine, Voice, included an article on livestock biosecurity. It began:

"An outbreak of foot and mouth in Australia would cost the Australian economy between $5 billion and $52 billion depending on how quickly it was detected and contained. Most of these costs would be borne by producers."

and went on to say

".....the world is shrinking and the outbreak of a major exotic disease in livestock is now no longer 'if it occurs' but 'when it occurs'."

The NSWNRC similarly reported on the issue in its recent pest management review.

"Australia is free of the world's worst animal diseases, such as foot-and-mouth disease and (classical) swine fever. However, the risk of these diseases remains a threat to the Australian environment, economy and community. The growing rate of global trade, closer proximity of livestock, people and wildlife and other human interventions such as animal translocations for conservation or recreation purposes continue to increase the risk of a serious disease outbreak (Henderson 2008).

"For example, the threat from deer or pigs of an outbreak of foot and mouth disease or the spread of Johnes disease pose direct threats to Australia's agricultural production. ABARES estimates that national losses from a foot and mouth outbreak could range from $7.1 billion for a small three-month outbreak, to $16 billion for a large 12-month outbreak – equal to around 30 percent of the gross value of agricultural production (Matthews 2011; Australian Bureau of Statistics 2015). Pest animals can also spread weeds, which can impact productivity and biodiversity."

Whether the cost is $5 billion, $7 billion, $16 billion or $52 billion, it is a massive amount and avoidable but only if the effort to reduce the risk of disease outbreak and spread is increased.

Livestock farmers have a large investment in livestock genetics. Reliance on being an island is not an acceptable defence strategy against the spread of livestock related diseases as Tasmanian farmers have found out with Ovine Johne's Disease and UK and Japanese farmers experienced with foot and mouth disease. The risk posed by deer to the Tasmanian livestock industry is unacceptable. Action must be taken to lower and more effectively control the population to reduce it.

In addition, as the deer population grows so will the risk of disease within the herd itself. Who will be responsible for sorting this out when it happens?

Forestry production

On a neighbouring property the forestry enterprise required paid shooters for first 30 months of operation to control wild life including deer and that a proportion of replanting has been required as a direct result of wild animal activity. Deer are not fussy as to whether it is eucalyptus or pine. A 2008 paper entitled *"Agricultural impacts of wild deer in Victoria"* included observations on one forestry operation where deer were seldom seen and yet there was stem damage to 8.5% of trees taller than 30 cms.

The overseas evidence of damage suggests it is likely to be an important productivity issue for Forestry Tasmania.

Infrastructure and other damage

- Damage to fences is hard to quantify. The deer impact is greater than caused by other wild animals due to their size and the pressure created by groups focussing on single crossing points.
- Retarding new pasture development and existing pasture regeneration through premature browsing leads to the uprooting of young plants. This attribute is not unique to deer but it cannot be denied that they are part of the problem.
- Additional on-farm vehicular activity needed for deer culling results in unnecessary tracking. This is very relevant in environmentally sensitive areas.
- Rut holes, euphemistically know as stag scrapes, can be such that they are deep enough to represent a tipping hazard for ATVs.

Safety

Land holders have a legal and moral responsibility for the safety of people on their land. This may be addressed to an extent through the use of waivers and indemnities. However most land holders would not want this tested nor would they want an accidental shooting to have occurred on their land. The increasing presence of deer both in density and range and the calls for greater access for shooting be it on private or public land increase the risk of shooting accidents. In North America hunting in some areas has been discontinued due to safety concerns.

The other safety aspect relates to poaching. Not knowing who may be on your land and where they may be with their tool of trade, a high powered rifle, not only creates an uneasy feeling but sets up unanswered questions such as liability if a person who has been granted permission is injured or harmed by someone present without permission or indeed if a poacher is injured while on your land.

Related to illegal hunting activity is the fear of retribution for disturbing or resisting those involved – gates left open, stock shot, a match dropped .....

Environmental impact

Browsing and thrashing damage to trees and shrubs while thought of primarily as environmental damage also impacts farming operations, especially over time, through the reduction in livestock shade and shelter.

The tracking habits of deer result in destroying established vegetation or struggling regrowth along water courses, erosion and fouling of waterways.

The cost of lost farm productivity.

Time lost as a result of deer whether it is through the need to co-ordinate and administer hunters, following up poacher incursions, applying for crop protection permits, culling deer, liasing with the Game Management Services Unit or working for change all has an opportunity cost.

Advice has been to make more use of recreational hunters. This is rejected based on experience with respected hunters. Their availability is limited, their presence closes areas to other farm activity and their agenda seldom coincides with the real needs of the farm. A move to deploying more people using high powered weapons on the property brings with it the increasing risk of an accident, potential liability issues and the possible impact of a hunting related accident.

Revenue

There are positive factors related to deer on private land such as revenue that can be raised by charging hunters for property access. On larger properties where it is possible to cater for fifty or more hunters each year this is attractive. However for smaller farms it is less appealing when the administrative aspects such as contact and reference checking are considered plus the hassles caused by rogue shooters who damage the reputation of the majority. It is not just a matter of accepting any person with correct paperwork who is prepared to pay the fee. In the case of "Kingston" income raised from hunters would be less than a quarter of the current estimated cost of being forced to host the deer.

Wild Animal Control Currency

When Property Based Game Management Plans were introduced one of the selling points was that with deer hunting rights as part of the arrangement hunters would take care of the other game control issues. In the author's experience the hunters do contribute but not to the extent necessary. A tally of animals shot on "Kingston" in a two and a half year period when a major effort was made to accommodate the needs of recreational hunters, "plan hunters" accounted for 30% of the total take. Importantly, of the 450 deer taken in this period they accounted for less than 25%. There is a conflict of goals.

Widespread recreational hunting does not have the long history in Tasmania that it is purported to have. In many places it may only go back 30 to 40 years. There are plenty of landowners who can remember when deer were either very rare or non-existent on their land. The author's personal knowledge of his farm extends back fifty years. In the early 1970's he spent a year working on the farm and yet not once did he see a deer.

Regardless of the requirements of landowners and without any consultation with them Tasmania has been split into what is known as the core or traditional deer range and the non-core range. How this happened is a further example of the lack of transparency of deer administration and the impost of a burden for which there is no compensation nor in most cases, representation in relation to the decision making process that impacts those in the core area. It has been the state management of the species that has caused the spread and increase in population to the extent that an administrator has deemed "Kingston" to be part of the core deer range and therefore to be managed by the WMB first and foremost for recreational hunting.

In 2010 as part of a submission for the review of the Regulations the author canvassed the opinions of more than 100 farmers and other landowners on the issue of wild deer control. At least 80% of them supported the view that, on their own land, landowners should be able to control deer to the extent they required. This included large and small landowners and at least one who makes a significant amount of revenue from selling access to hunting. Without exception younger farmers, the future of primary production in the state, wanted change. It is time to respond to this predominant view.

One of the few tools available to those wanting to significantly reduce the presence of deer on their land is fencing. The cost is between $25 and $30 per metre and even more in difficult terrain. This is about three times the cost of a normal fence. Why should a landholder be forced into such expenditure to protect his or her enterprise from a cost directly resulting from government policy?

Recommendations 1, 2 and 3 noted in the previous section are equally relevant in this section.

Recommendation 4

That land holders be allowed to use alternate methods such as trapping and poisoning for deer control on their own land.

The Impact of Neighbours

The transient nature of deer means that the impact on one farm will be influenced by what happens on neighbouring land. "Kingston" has six neighbours three of whom are actively engaged in farming and three who are not. The three who are not comprise: one where the majority of the land was converted to managed investment scheme forestry; one that is for sale; and, one that is Crown land. The wildlife control on the two privately owned blocks is managed by recreational hunters. There is no legal wildlife control on the Crown block.

An analysis was undertaken of CPPs granted to the five privately owned properties for the years 2012 to 2014. The results were compared with "Kingston" itself. In order to provide a meaningful comparison the ratio of CPP deer cull per thousand hectares was used. The ratio for "Kingston" was 45.44 culled deer per 1,000 ha over the three years, about 10 times that of one of the un-farmed properties (4.56 per 1,000 ha) and 4.5 times that of "[redacted]" (10.06 per 1,000 ha), the property now given over mainly to forestry. In terms of total cull for the region, two properties, "Kingston" and "[redacted]" accounted for 54 % even though they represent just 27% of the total area. The analysis does not take into account deer killed under deer licence as the details were not available. Given that recreational hunting takes place on all the listed properties it is not considered that this would make a significant difference to the overall picture.

Further details of the analysis are able to be made available to the Committee if required.

The analysis is included to demonstrate the additional burden created when there are differing attitudes to the level of wildlife a landowner is prepared to tolerate. This is compounded by "Kingston's" farming operation that has fodder crops and improved pasture that attract the less well controlled deer from neighbouring properties. The restricted cull periods are a key factor in the failure to adequately manage let alone reduce deer numbers. The increasing deer population is exacerbating the situation.

Recommendation 5
That landowners with a deer population in excess of 2.5 per ha will, if requested by a neighbour, be required to reduce the population or provide a deer proof boundary fence sufficient to prevent deer from entering the requesting neighbour's property.

Deer Cost Estimate for "Kingston"

Why should farmers have to bear any costs at all? As noted deer are an exotic invasive species. They are destructive to the environment and due to the manner in which they have been managed threaten the commercial viability of "Kingston" as a farming enterprise. The owner is forced to host them and yet is allowed no say in how they are controlled on his land nor is he provided compensation for the service provided by hosting them. Where else is there such an inequitable hidden tax? The lost production and productivity is costing jobs as well as income.

The current annual cost of deer for "Kingston" is estimated to range between $36,000 an $58,000, depending on the deer population used, without any allowance for environmental degradation or making provision for the livestock risk posed by the species. However it is not just the financial loss that impacts the enterprise. There is also the opportunity cost of not being able to improve the farm due to the direct and indirect cost of deer.

The "Kingston" deer population has been assessed as being about 300. The average annual cull for the last three years has been 220 and is increasing, reaching 275 last year. The real population or at least the number regularly feeding on the property is much higher than the assessed level. Hone (2010) estimates the annual proportion of Fallow deer to be removed to stop population growth to be 34 per cent. If this is the case then the population required to support an annual cull of 220 is about 650 animals and the at the high end of the estimated range. The deer population dynamics for "Kingston" are a combination of natural increase and translocation. The derivation of the population is less important than the fact that the deer are continuously being demonstrated to be present in detrimental numbers. They have to be dealt with as they are, as already noted, a major cost burden and inhibitor to the progress of the enterprise. They are also a risk to the natural values deemed to be of national significance that are found on the property.

"Kingston" has only about 300 hectares of "improved" land, 10% of the farm. This area is critical for the ewe flock, lambing and for young sheep to grow out. 85% of the deer shot on the farm are killed on or just outside this area.

The factors used in the calculation of the cost to the farm include the deer population, fodder consumption, fodder crop and pasture damage, sheep productivity and healthcare, infrastructure damage, management time, tree regeneration and poacher retribution. Full details of the calculation are available for the Committee if required.

Uncosted into this calculation is the inability to establishment of lucerne, a highly digestible fodder crop and one the best sources of protein for sheep, due to the current level of deer at "Kingston" and the prohibition on controlling them for much of the year. The farm bill for purchased luncerne fodder in 2015-2016 will be in excess of $20,000, a largely avoidable cost.

If the cost to "Kingston" is $36,000 per annum or more and this farm is just 0.15% of the DPIPWE nominated deer range (2.1 million hectares) the economic impact for the state could be in the range of $25 million per annum. (The author accepts that extrapolation from such a narrow base must be treated with caution. Damage to high value crops may increase this value as may an update of the extent of the deer range.)

Recommendation 6

That in the event of the partially protected species status for wild Fallow deer being retained those land holders who determine that their land is not available for recreational hunting and who actively pursue a deer minimisation strategy should be compensated for the continued presence of deer on their land.

Reference Item Three - The partly protected status of fallow deer under the Wildlife (General) Regulations 2010

Fallow deer, as noted, is a species that has been assessed as an extreme risk pest, is not allowed to be imported into Tasmania except under very stringent conditions, has been demonstrated to be an ecosystem changer, a major cost to farmers and a biosecurity and road safety risk and yet, in Tasmania, the only remaining place in the world, remains a partly protected species under a highly regulated and punitive control regime. In the modern vernacular, go figure!

The partly protected status of wild fallow deer under the Wildlife (General) Regulations 2010 (the Regulations) has provided the mechanism for the species to become widely established in Tasmania. The Regulations terminology, in critical instances, is loose thus enabling broad interpretation.

Absolute authority, without any form of appeal mechanism, is granted to the Secretary [of DPIPWE] for administering them. This allows the Regulations to be used to support the wildlife policy of the government of the day regardless of what that policy might be. The management of the species is delegated to members of the Wildlife Management Branch (WMB).

It is important to note that should a recommendation such as "open cull" for deer (that is with at least private land holders able to operate as their counterparts in NSW and Victoria are able to) be supported by the Committee and accepted by the Government it could be implemented immediately without any requirement to amend the NCA nor the Regulations. This is exactly the position accorded native animals such as brush tail possums and Bennetts and Rufous wallabies.

Key Regulations

In this section key regulations that have been used to facilitate the spread and population increase of Fallow deer, as has happened, and to impact the Tasmanian economy and its natural values are detailed. It is not suggested that the Committee needs to be expert in the Regulations. It does need to appreciate how they are able to be used.

Legislation allows for recreational hunting of deer via the purchase of a licence and the taking of deer during the declared deer season and the control of deer via crop protection permits (CPP). Recreational hunting contributes to control to a degree. The table below illustrates how the importance of this has declined.

The Minister, via the NCA, sets the period for the deer season. In 2016 this was extended as a trial. It is believed that this will continue in spite of the TFGA's rejection of the proposal on the grounds that deer control via CPPs is more effective and easier to manage. The take quota is set by regulation. For a number of years the number that could be taken in the deer season on a deer licence was two. In late 2015 this was increased to three for the 2016 season.

CPPs are a moving target. There is no publicly available document that comprehensively sets out the range of CPPs, the periods during which they are available and the conditions applicable to each. It is a challenging area that has led to contradictory and incomplete advice being provided by the WMB officers.

The change in the relative importance of licences and CPPs as methods for the control of deer in the last 10 years is shown in the table below. The contribution of licenced killing has almost halved, from 41% to 23% of the total. CPPs issued have more than doubled, from 9,725 in 2006 to 21,683 in 2015.

	Licence take	CPPs	Total	Licence %	CPP %
2006	4,015	5,710	9,725	41.3%	58.7%
2007	4,226	7,057	11,283	37.5%	62.5%
2008	3,836	8,031	11,867	32.3%	67.7%
2009	3,550	5,475	9,025	39.3%	60.7%
2010	3,746	4,239	7,985	46.9%	53.1%
2011	3,816	3,983	7,799	48.9%	51.1%
2012	4,383	6,263	10,646	41.2%	58.8%
2013	4,061	7,670	11,731	34.6%	65.4%
2014	4,016	10,981	14,997	26.8%	73.2%
2015	4,975	16,708	21,683	22.9%	77.1%

The data is from DPIPWE sources. Care needs to be taken with the use of it because CPPs are not fully used but on the other hand there are landowners and farm workers who purchase deer licences to assist in deer control rather than for recreational purposes. This variation will also be offset by the number of deer illegally shot and those fatally wounded but not found.

Regulations relevant to Crop Protection Permits

Regulation 21(1)

Once an application for a CPP is submitted Regulation 21 may be applied.

21. Grant and issue of permit

(1) On receipt of an application for a permit made in accordance with regulation 20, the Secretary may –

(a) grant the application; or

(b) refuse to grant the application.

Several points need to be made in relation to this regulation and how it is able to be used.

Regulation 21 (1) provides the Secretary (or a delegate) the authority to grant or refuse an application for a CPP. If the latter, end of story. There is no appeal mechanism, other than a judicial review, for a landowner who may be caused thousands of dollars of damage as a result of a refusal. The judicial review process is unrealistic for a farmer, generally a small business owner. The DPIPWE, from personal experience, can make it a lengthy, time consuming and expensive process during which time the damage to the farm continues.

The ability of "the Secretary" to refuse to grant a permit is a mechanism for controlling when CPPs will be issued and for what type of deer. The most important factor in the increasing presence and number of deer in Tasmania is the controlled access to culling. In NSW and Victoria, the only other

states where deer are managed as a game species, land owners at least have the ability to control deer on their own land to the extent that they wish.

A check with a member of the WMB in May 2016 provided the CPP detail in the following table.

Deer types	CPP period	% of yr CPP
Antlerless	April to October	58%
Immature male (males 0-18 months)	April to February	92%
Bucks (males 18 mths and older)	March, May to October	58%

The percentage of the year has been added to illustrate the impact aspect. The only period during which a farmer may be granted a CPP for all categories is from May to October, 50% of the year. CPPs for antlerless deer are only available for seven months of the year. This increases to eight months if part of the deer season (that is the inclusion of licenced hunting) is included but is of limited value as it is not the priority for recreational hunters.

Promoting plant growth is always important in farming enterprises and especially from October to March. It is especially the case for cropping and livestock enterprises yet for most of this period, November to March, the only CPPs available are for immature males, spikies. The reason for not granting CPPs for antlerless deer from November to March is given as animal welfare, the possibility of does being shot leaving orphan fawns. It is certainly a consideration. Farmers are aware of this. They are also well positioned to minimise the potential for this to occur.

The use of animal welfare to prevent crop protection needs to be considered in the context that the deer population is being managed for a recreational purpose and the primary goal of this purpose is to kill deer. Deer are being allowed to breed up for the express purpose of being shot by people with a range of abilities in the field as a hobby or as "sport". The fact that the Australian Deer Association in its national profile recorded in the Invasive Animals Cooperative Research Centre's Proceedings of the National Feral Deer Management Workshop (p123) makes the statement, "The ADA takes a strong stand against cruelty and incompetent or irresponsible hunters", is acknowledgement of the fact that there is an issue within the recreational hunting fraternity. The animal welfare aspects do not receive genuine consideration in relation to the recreation itself and should not be used to prevent those whose enterprises require year round wild animal control of species including deer.

Due to the policy of restricted access to CPPs that has been applied the problem of growing deer numbers is becoming increasingly difficult to deal with. The animal welfare issues that may exist are correspondingly becoming greater and will continue to do so until open cull is allowed or deregulation of deer takes place to reduce the population.

Two further aspects of the CPP availability table need to be considered. Firstly, shortly after similar information was provided (2014) it was discovered via a Right to Information request for details of CPPs issued to "Kingston's" neighbouring properties that permits were also being issued for the control of "inferior" bucks as part of deer herd management. "Kingston" has a registered game management plan with recreational hunters participating each season so why was the availability of CPPs for this purpose not communicated to the landholder?

More importantly, a further consideration of this WMB action of issuing CPPs for shooting inferior bucks, is that the Regulations do not allow for CPPs to be used for herd management. Regulation 21 (2), the regulation under which the CPPs were issued, states:

The Secretary is not to grant an application for a crop protection permit referred to in regulation 26 unless satisfied that it is proper to do so to prevent the destruction of, or injury to, any stock or plants caused by the wildlife specified in the permit.

There is no mention of herd management. It is possible that the legality of CPPs issued for herd management may now have been addressed through a provision within the Nature Conservation Act 2002 rather than the Regulations. Legal opinion on this would be needed. The fact remains that the WMB was providing CPPs to a few properties and in particular one, "[redacted], with close connections to the WMB itself and the Tasmanian Deer Advisory Committee. It was an example discovered by chance. There may be others.

Secondly, the ability to control the issue of CPPs manifests itself in another way but one that is difficult to review due to the lack of transparency around it. Advice has been provided that there is a traditional or core deer range. How this is determined is not known. The ability to grant or not grant CPPs seems to be varied depending on where a property is located regardless of the impact of wild deer on the property. It is a clear example of the regulations being applied differentially regardless of the wording.

The withholding of CPPs for the benefit of recreational hunting

There is evidence that the WMB will withhold the issue of CPPs due to the impact the subsequent activity might have on recreational hunting. During the drought in early 2009 the issue of CPPs for deer (and Forester Kangaroo) was delayed due to the impending deer season. The WMB [redacted], made this clear to the owner of "Kingston" and the property manager.

The fact that CPPs for male deer are only available at certain times is a further example of the bias against landholders in favour of recreational hunting regardless of the applicable regulation.

Regulation 26 and Regulation 21(2)

Regulation 26 sets out the intention of a CPP.

A crop protection permit authorises the taking of such form of partly protected, protected or specially protected wildlife as is specified in the permit to prevent the destruction of, or injury to, any stock or plants caused by that wildlife.

As a single regulation it is straight forward enough but this fades in the context of Regulation 21 (2):

The Secretary is not to grant an application for a crop protection permit referred to in regulation 26 unless satisfied that it is proper to do so to prevent the destruction of, or injury to, any stock or plants caused by the wildlife specified in the permit.

There is no precedent document defining what is deemed to "satisfy" the Secretary, a further example of the lack of transparency in wildlife administration. In July 2011 clarification was sought

from the Secretary of DPIPWE. The letter was responded to by [redacted], Resource Management and Conservation, on 6 September 2011. The notified requirement was for evidence of damage, clearly ignoring the Regulation which supports CPPs being issued which states:

to prevent the destruction of, or injury to, any stock or plants

There have been instances where crop protection permits will not be issued until a property inspection has taken place to verify either the number of deer or the amount of damage. This unnecessarily delays the processing of an application allowing damage to continue until such time as a representative of the WMB makes a decision.

The methodological inadequacy of the property inspections is worthy of comment.

On two occasions the WMB has insisted on property surveys to assess "Kingston's" need for CPPs for Fallow deer. The methodology used is a limited version of a spot light survey, that is it is a single instance over a limited part of the property. It is a procedure that has been deemed inappropriate at least since 1973 when in his report, Fallow Deer in Tasmania, Hans (J.E.) Wapstra, a National Parks and Wildlife staff member, wrote that spotlight surveys were extremely unreliable.

The WMB persisted with insisting on spotlight surveys even after the Alternatives to 1080 Report published in 2010 (p3) notes:

Monitoring wildlife numbers using spotlight counts, or numbers of wildlife shot, have both been demonstrated to be very ineffective tools for evaluating the effectiveness of a control strategy.

The WMB's own wildlife control Planning Guide (p11) also commented:

Spotlight counting .....is notoriously inaccurate for determining animal abundance. As such it is not recommended a monitoring tool.

The other concerning aspect of spot light surveys is how the results have been used to estimate the impact of wildlife on a property. The WMB report of the spotlight survey undertaken on "Kingston" in 2010 produced the finding that the grazing impact of wild animals was 2.45% of the total animal (wild plus farmed) grazing pressure. In reviewing the calculations that reached this conclusion it was observed that the only wildlife included was the number counted in the survey, seemingly making the assumption that during the survey that covered less than 20% of the property and lasted about six hours every one of the applicable species was seen and counted! To put this in context 265 wallabies were observed. In the few weeks following the survey, as part of the farm's on-going wildlife control program, 352 wallabies or 133% of the property's deemed population for the WMB's purpose of calculating grazing pressure were shot! Other errors in the calculations included the incorrect feed consumption rate for deer, about half that acknowledged by the deer industry and others within DPIPWE, and a mathematical error. This was the analysis that determined there was only the need for:

".....a small number of tags (5) under a shoot to scare/kill permit to allow you to protect any crops/pasture or native vegetation that may come under browsing pressure in the coming months." [redacted], WMB, email dated 26 April 2010.

It was a decision that negatively impacted the financial results of the farm and yet in spite of the errors being pointed out there was no attempt to rectify the situation for several months until the General Manager of Resource Management Conservation, DPIPWE, became personally involved.

A "reasonableness" check of the WMB assessment of the grazing impact of wildlife at "Kingston" should review the pasture loss data from *The Nature and Implications of Browsing by Native Wildlife on Tasmanian Farms* by Professor Tony Norton et al, June 2010, as part of Alternatives to the Use of 1080 Program. Page 35 tables browsing pasture loss from monitoring sites in the Midlands. It ranges from 81% at 25 metres from native vegetation (bush lines) to 41% at 500 metres and 18% at 800 metres. Much of "Kingston" is either native vegetation or within 500 meters of it. Pasture loss/usage is far more likely to have been in the range of 40% than the insignificant amount, 2.45%, as is stated in the WMB April 2010 assessment.

In addition, the WMB lacks consistency in determining the level of control permitted. For instance in the lead up to the July 2011 property inspection extensive evidence of damage and the presence of deer both through photographs and visual inspections was provided and yet the only aspect of the visit referred to in determining the inadequate CPP granted was that five deer were seen during the spotlight inspection. This was reinforced in the Statement of Reasons prepared by [redacted], Resource Management Conservation ([redacted]), requested by "Kingston's" owner to justify the CPP decision [redacted] (WMB) had made on 8 September 2011. Contrast this with the statement made by the Minister for Environment, Parks and Heritage in a letter dated 13 March 2012 to the owner:

.....it is important to note that in all cases assessments are based primarily on evidence of damage and not on the numbers of specific wildlife found on a property at any one time.

A further aspect of the application of Regulation 26 follow.

A crop protection permit authorises the taking of such form of partly protected, protected or specially protected wildlife as is specified in the permit to prevent the destruction of, or injury to, any stock or plants caused by that wildlife.

Application of the Regulation, *preventing destruction of, or injury to plants caused by wildlife* involves the interpretation of the term "plant". It is not defined in the Regulations but it is in the parent legislation, the NCA, a plant is interpreted for the purpose of the NCA as:

(a) a form of vegetation; and

(b) an organism belonging to the vegetable kingdom; and

(c) a fruit; and

(d) a seed; and

(e) a product of a plant; and

(f) a part of a plant –

whether that plant is alive or dead or whether or not capable of growth;

At a meeting in June 2012 attended by "Kingston's" owner and [redacted] RMC, to discuss wildlife control on "Kingston", the latter stated that crop protection permits should only be issued

for the protection of commercial crops thus forming an incorrect interpretation of Regulation 26 (1). This was the view of the administrator with responsibility for the WMB, the main unit tasked with the management of deer.

[redacted] interpretation, if implemented, would have a devastating impact on "Kingston" which is 85% native grassland communities (including nearly 900 ha under conservation covenant) and lightly timbered sheep grazing country with infrequent commercial crops. [redacted] reason for making the statement remains unknown. However it was consistent with the inadequacy of earlier decisions that failed to recognise the extent of wild deer control required and the skewed interpretation of the Regulations.

For verification of [redacted] comment the meeting was also attended by a former DPIPWE employee who also observed the statement to be incorrect.

It may be that [redacted] understanding was based on advice from [redacted]. In an email dated 22 April 2010 [redacted] recommended to [redacted], when deer control for "Kingston" was being considered, that:

"....if property management were to indicate that a particular high value crop (eg. Poppies, grains, seed crop, but not just pasture) is at risk from deer, a small number of tags (say 5) could perhaps be issued to allow some shooting to deter the remainder....."

In effect [redacted] was saying there may be a case for a few tags just to scare deer, not to seriously control them, from high value crops but not from pastures. Native vegetation and the need to protect endemic flora did not rate a mention. This is at variance with Regulation 26 (1) as noted above.

A further example of undisclosed (to those dependent on CPPs) interpretation leading to modification of the intention of the Regulations was identified in an email dated 15 July 2010 from [redacted] ([redacted] WMB) to [redacted], WMB:

"I note that reg13 [reference to the Wildlife Regulations 1999 that preceded the current Regulations], which provides the basis for our issuing Crop Protection permits, states- The Secretary ...may issue a permit authorising the taking of wildlife ....if satisfied that it is proper to do so to prevent the destruction of, or injury to any stock or plants caused by that wildlife. In my view, this requires the department to be satisfied that the wildlife in question is causing 'significant' damage to the values of the property."

[redacted] is suggesting that the words forming the regulation, the legislated requirement for wildlife management, should not be adhered to as written but rather another standard created by him be applied – being "significant damage". The failure of DPIPWE to provide any clarity around its interpretation of the Regulation supports the contention that [redacted] view was the one used for assessing permit applications rather than the standard plainly written in the Regulations.

It is worth noting that the assessing of applications for crop protection permits seems to be based on the judgement of the individual officer with delegated authority whose desk it lands on. There are no (publicly available) guidelines other than the Regulations themselves.

Regulation 20(1)(c)

The power of the Secretary is also enhanced via Regulation 20(1)(c).

> 20. Application for permit
>
> (1) An application for a permit under this Part is to be –
>
> (c) accompanied by a written notification of all relevant offences of which the applicant has been convicted within the period of 5 years immediately preceding the day on which the application is made.

The interpretation in full as per the Regulations is as follows:

> "relevant offence" means –
>
> (a) an offence under the Act, the Animal Welfare Act 1993, the Firearms Act 1996, the National Parks and Reserves Management Act 2002, or the Threatened Species Protection Act 1995; or
>
> (b) regulations made under any of those Acts; or
>
> (c) such other offence as determined by the Secretary for the purpose of this regulation;

The additional power lies in the open-ended definition of "relevant offence" for which no guidelines are provided.

Regulation 22

The Secretary as per Regulation 22 is empowered to attach conditions to a CPP.

> 22. Permit subject to conditions
>
> (1) A permit under this Part may be granted and issued subject to such conditions as the Secretary considers appropriate.
>
> (2) Without limiting subregulation (1), the conditions may relate to any one or more of the following matters:
>
> (a) the manner in which an animal taken by the permit holder may be identified;
>
> (b) the affixing of a tag by the permit holder to an animal so taken;
>
> (c) the time at which, the period within which or the place at which the authority granted by the permit may be exercised;
>
> (d) the manner in which that authority may be exercised;
>
> (e) the precautions to be observed in the exercise of that authority;
>
> (f) the person by whom any act authorised by the permit is to be done, or the supervision or control under which any such act is to be done;
>
> (g) the disposal of, or other dealings with, any wildlife or wildlife products taken under the authority of the permit.

The Secretary has complete and unquestionable autonomy. The Regulation provides the ability to impose restrictive conditions that by default reduce the effectiveness of a CPP.

The aspect of Regulation 22 that is also important is the administrative complexity and uncertainty that the Conditions provide. It is submitted that the conditions as they appear on CPPs are sometimes poorly worded and in one instance could lead to a breach of the Regulations and the

severe penalties that may be applied as a result. Examples to support these claims are available should the Committee require them. Given that a CPP is a legal document it is unacceptable that their content and presentation is not more professional.

Regulation 51

> Regulation 51. Special provisions as to deer
>
> (2) Except with the written permission of the Secretary, a person must not take a deer otherwise than by shooting it with a rifle –
>
> (a) with a calibre of not less than 6 millimetres (or 0.236 inches); and
>
> (b) which is capable of delivering a projectile having a kinetic energy of 1 350 joules (or 996 foot pounds) at a distance of 100 metres (or 109.36 yards) from the rifle.
>
> Penalty: Fine not exceeding 100 penalty units.

Attention is drawn to Regulation 51(2). The only available method for killing deer is by shooting with a rifle unless it is agreed by the Secretary. The importance of this regulation may increase as the need to look beyond shooting to effectively control the ever increasing deer population is realised.

Compliance with Permit Conditions

> Regulation 22 (3)
>
> A person to whom a permit is issued under this Part must ensure that the conditions of the permit are complied with.

Responsibility for compliance is a grey area when permits are issued as Landholder Wildlife Management Authorities (a permit that allows the issue of sub-permits to individual shooters). It is understood that provided the shooter is given a copy of the permit with his or her name and address on it this is sufficient to transfer the responsibility for compliance, and this has been confirmed by the General Manager, RMC, DPIPWE. Nowhere is this formally documented. If, at some point, it is deemed not to be the case, this will reduce the opportunities for hunters and shooters to participate in farm wildlife control including deer.

The confirmation of the transfer of responsibility by the General Manager, RMC, was provided after a prolonged legal action by DPIPWE against Lyndel Poole, the manager of the property "Kingston". Lyndel Poole's case included a series of complaints due to her alleged failure to comply with permit conditions. The action was finally discontinued when the DPIPWE, in its defence against Lyndel Poole's application for costs, submitted that:

'....the matter was discontinued after the defence drew the prosecution's attention to the existence of sub permits which included the obligation to return unused tags.'

The failure of the DPIPWE to ensure its staff are competent in the conduct of their duties and the cost of its failure in the action against Lyndel Poole need addressing but are beyond the scope of this submission.

Permit Returns

Generally on the landholder copy of a CPP a return is specified and required within 28 days. Deer control, when allowed, may be impeded by

Regulation 30 (1) specifies that:

The Secretary, by written notice, may require the holder of a licence or permit issued under this Part to provide the Secretary with a return, in a form approved by the Secretary, giving such particulars as the Secretary specifies in the notice.

This is being misinterpreted within the WMB in a manner that is disruptive to wildlife control on farms. The issue of CPPs are being withheld until the return for another type is provided even when not yet legally required. Examples are able to be provided should the Committee require them.

While it may be justifiable under Regulation 20 to withhold the issue of a CPP for a like species or type of deer there is no legal basis for not processing an application for another species or type if there is no legal requirement for returns to have been submitted.

Recommendation 7

That the Wildlife (General) Regulations 2010 be reviewed and that, as a minimum, the uncertainty that exists in relation to regulations 21 and 26 is removed, an appeal mechanism is introduced for instances where the Secretary is deemed by the applicant to have refused to grant a crop protection permit inappropriately and the mandatory five year ban for a breach of the Regulations is removed.

[This recommendation should be considered whether or not Recommendation 1 is accepted.]

Recommendation 8

That details of procedures related to the administration of the Regulations be compiled and made publicly available.

Inconsistent application of the Regulations

Regulation 20 requires that a CPP application should be in writing. This requirement is not adhered to by those who administer wildlife control. On page 30 of Game Tracks 2016 it is stated:

"Applications can be made by the landholder verbally over the phone, face to face, or in writing using post, fax or email."

In an email to the Kingston owner on 25 February 2011 by [redacted], WMB, DPIPWE that:

"In order to avoid any possible misunderstanding and allow a proper assessment of the application as is now required under Regulation 20 of the Wildlife (General) Regulations 2010, we ask that in future any applications for permits must be made in writing, and specify the type of wildlife to be taken, including numbers, the method used, the period of the permit requested and details of any damage being done by that wildlife."

A recent disclosure request to the DPIPWE for several specific CPP applications and their corresponding returns failed to result in the provision of written applications from the landholders. Instead copies of internal forms used for recording CPP applications were presented. This would not seem to meet the letter or intention of the Regulation. If the WMB argues differently, where is the section to record whether or not a relevant offence has been committed?

Regulation 30 requires that hunters provide a return with information on the numbers of animals taken. Achieving compliance, given the consistent mention the topic of licence returns receives in Game Tracks, is an on-going issue for the WMB and yet there is no evidence of a hunter being charged for a breach of the Regulations. Returns for CPPs are similarly required. One of the DPIPWE's unsuccessful complaints in its action against Lyndel Poole was for such an offence. It has to be asked why a landholder and in particular Lyndel Poole, was singled out for action in relation to a possible breach.

Paperwork nightmare

The paperwork required for wildlife control of protected and partly protected species is very extensive. In the case of deer it has been exacerbated by the growing numbers and the increased control effort required. While there may have been some relaxation in relation to the availability of CPPs the only attempt to simplify the process has been the combining of all male deer onto a single permit where as previously immature males and adults were treated separately. The CPP process includes:

- Applying for a CPP or range of CPPs
- On receipt of the CPP/CPPs recording the details
- Making copies of the CPP/CPPs and allocating them and tags to the shooters who will be using them
- Issuing CPP/CPPs to shooters and those assisting them (eg driver, spotlight operator)
- Receiving back the CPP/CPPs returns when filled or expired
- Recording details
- Submitting the CPP/CPPs return/s to the WMB.

This may appear straight forward for one or two shooters but put in the context of multiples for the number of species or (in the case of deer) types and the number of shooters (and their off-siders such as drivers, spotlight operators and carcass collectors all require permits as well) fifty or more documents or copies of documents is easily reached for a round of CPPs.

Changing the Regulations

The Regulations are subject to review every 10 years. The most recent, completed in 2010, resulted in changes such as the introduction of the mandatory five year ban for a conviction of a relevant offence and additional constraint on the Secretary in relation to granting an application for a CPP. As required by the review procedure public comment was called for once the draft was released. The content of submissions was ignored.

It was interesting to observe that late last year a decision was made to increase the number of deer able to be killed on a deer licence from two to three. This required a change to Regulation 51 which

was achieved within a few weeks. (It is believed the meeting at which the change was endorsed was late November or early December 2015. The change was gazetted on 23 December 2015.)

The example of the change to the Regulations at short notice is made to illustrate that, should the need be there to change the Regulations, it can be achieved at any time and not just as part of the 10 year review. It can be done within a few weeks if necessary.

A breach of the Regulations

The increasing prevalence and density of wild fallow deer in Tasmania brings into focus the penalties for a breach of the Regulations.

A breach of the Regulations may lead to a criminal conviction with all the serious implications this results in. Any conviction for a breach of the Wildlife Regulations is a criminal conviction. This is something that may impact directly on a farmer's livelihood through not just being unable to control wildlife but to put at risk clearance to grow poppies and impact his or her life in many other ways. It has the potential to have serious consequences for a farmer and could finish a farm manager's career. This may seem to be scare-mongering but the WMB has attempted to have a manager convicted for the failure to submit a permit return and expired cull tags.

Perhaps there are some breaches of the Regulations where a criminal conviction is warranted but there are others such as the burdensome bureaucratic and conflicted requirements that do not. Mandatory penalties seldom achieve the desired outcome. The stipulation was introduced as part of the review of the Wildlife Regulations 1999 that preceded the Wildlife (General) Regulations 2010.

Changing approach?

In the last year there is evidence of loosening controls on culling to the extent that cull quantities within the policy determined cull periods are less likely to be restricted for adult male deer. In late 2015 to early 2016, supposedly in response to the dry conditions, additional access was provided to some landowners for the culling of stags. This "concession" was poorly communicated – "Kingston" personnel only found out about it through a chance conversation – although much was made of it in the publication Game Tracks. What also needs to be stated in relation to this "one-off" assistance in time of livestock feed shortage is that it was very similar to the "inferior" stag culling permitted on certain land by favoured recreational hunters. As already noted knowledge of this type of CPP only came to light as a result of an analysis of CPPs issued to neighbouring landholders obtained via a Right to Information request as described earlier in this submission.

If there has been a relaxing of control to allow more culling it has not been sufficient to address the problem that exists. As history has frequently demonstrated with repressive regimes that protect minority interests, it is too little too late.

An example of the impact of wild fallow deer as a partly protected species under current Government policy.

The Australian Government's ***Caring for Our Country Business Plan 2010-11*** reminds us:

"Australia's natural environment is in decline. We have suffered the largest decline in biodiversity of any continent over the past 200 years and our rate of decline remains one of the highest in the world." It also says that Australia has obligations under the International Convention on Biological Diversity and has established the National Reserve System in support of this to manage biodiversity conservation. Underrepresented bioregions include the Tasmanian Northern Midlands [of which "Kingston" is a part].

The example provided relates to the property "Kingston" where the owner's contribution to biodiversity conservation is seriously and perhaps permanently undermined by successive Tasmanian Governments' wild Fallow deer policy.

The recognition of the importance of "Kingston's" natural values is relatively recent. In 1991, after fortuitously finding the "Kingston" grasslands, Professor Jamie Kirkpatrick, Department of Geography and Environmental Studies, University of Tasmania wrote to the then owner, Ralph Cameron:

"The area is probably the largest remaining area of native grassland in Australia and it is of great biological and scientific value."

In 2005 DPIPWE botanists, Louise Gilfedder, Karen Johnson and Dan Sprod, conducted a natural values study of "Kingston". The report summary stated:

""Kingston" is one of the few remaining arable, valley flats in Tasmania to retain native vegetation at the landscape scale. "Kingston" retains roughly 8% of all kangaroo grass grassland in Tasmania [importantly only 3% of the Tasmanian native grasslands here at the time of European settlement remain] and roughly 1% of tussock grass grassland. It is rare to find extensive areas of these communities in good condition and with good landscape context. .....

"In total, "Kingston" contains four threatened non-forest plant communities and two threatened forest communities. It is home to at least 12 threatened plant species, three of which are threatened at the national level. [Observations since then have identified additional threatened species on the farm.] It contains habitat for a number of threatened animals.

"It is highly likely that the natural values retained on "Kingston" make this property a place of national significance."

In 2009 Lowlands Native Grasslands of Tasmania, the type found on "Kingston", were listed as critically endangered in the Environment Protection and Biodiversity Conservation Act 1999, the Australian Government's "centre piece of environmental legislation".

"Kingston" has conservation covenants covering about 30 per cent of its land. These were agreed by the owner to form the basis for the protection of the significant natural values that exist there.

The legally binding agreements creating the covenants require the eradication or control of weeds and feral animals and to prevent any further introduction(s) of exotic species. In the feral animal control section it is stated that:

Taking of Deer will be governed by regulatory requirements. Numbers on the Land will be maintained below a level that might lead to damage to the Natural values.

At no time since the establishment of the covenants has the owner been able to meet the second part of this requirement due to the constraints on deer control. Appeals for additional assistance to DPIPWE and the Minister for the Environment failed to result in any additional support to reduce the number of deer in spite of evidence of their presence being provided. Even an appeal endorsed by three land conservation NGOs to the then Minister for the Environment, Brian Wightman, was rejected. The fact that "Kingston", in spite of its natural values is in an area with some of the highest deer density in the state counts against it. This is frustrating and demoralising for the land manager. It was also fiscally irresponsible by the Minister given the payment of several hundred thousand dollars of tax payers' money to the owner for agreeing to the covenants.

Visitors to "Kingston" be they from other parts of Australia or overseas shake their heads in disbelief when told of the deer control restrictions and the lack of government support for the owner's commitment to biodiversity conservation on the property.

It is submitted that the power provided through the Regulations and the authority to administer them has been used wrongly and at a very significant cost to those affected. The acceptance of the recommendations of this submission is required to effectively address this.

Reference Item Four - Commercial opportunities for the use of wild population stocks

The New South Wales Natural Resources Commission Pest Management Review (2016) included the following comments on commercial opportunities.

"The potential for commercialisation of pest products was strongly supported provided the subsequent impact of commercialised species does not burden those who do not benefit from their commercialisation. The St George Hunters and Anglers Club and the Sporting Shooters Association of Australia respectively stated "given suitable conditions, it is also possible that some feral animals can be treated as a commercial resource and this could provide win-win solutions for governments and hunters alike" and "since deer are appreciated for their aesthetics, and are a valuable hunting resource, it is unlikely that they will ever be eradicated, but rather controlled within an acceptable population density. Deer and other non-indigenous hunting support industry and generate economic activity in regional areas".

"However, two submissions recommended caution when commercialising pest products as there is potential for commercialisation to jeopardise the maintenance of pest animal numbers for economic gain. One submission opposed commercialisation entirely."

Commercialisation will create employment opportunities the extent of which those already involved in game meats processing will be able to detail.

Commercialisation will improve the efficiency with which landholders are able to control wildlife on their land as commercial shooters are more productive, that is they have a higher cull rate per hour, are generally more flexible in when they are able to shoot than recreational hunters and they are easier to administer.

Due to the need for cleanly killed animals the welfare issues associated with wounded animals will be less frequent.

Importantly, increased activity by commercial shooters will not diminish the opportunities for recreational hunting although it may reduce the likelihood of recreational hunting success.

Commercialisation combined with other measures such as recommended in this submission will redress the current imbalance between catering for the demands of recreational hunters and the requirements of landholders to manage their land be it for natural values, as a farming enterprise or as a combination of both. To the extent that it would be complimentary with the overall wildlife control program for "Kingston" commercialisation would be supported.

Reference Item Five - Any matters incidental thereto

Property damage caused by deer

The level of damage caused by wild deer is widely reported especially in places where populations are excessive. For example in the USA from 1 July 2011 to 30 June 2012, the estimated cost of motor vehicle accidents involving deer was US$4billion. 1.3 million vehicles were damaged and 200 people died.

In the UK it is reported that there are about 74,000 deer related accidents in which 10-20 people die each year and 700 injured.

The RSPCA (UK) estimates that 10,000 deer are severely injured in collisions with vehicles in the UK each year. This highlights an aspect that receives little attention. Animal welfare is a major sleeper issue in the deer debate and one that is being compounded in Tasmania by the current deer policy.

A literature search has not identified any report of deer related accidents in Tasmania or other Australian states. Unfortunately, it is just a matter of time before fatal road accidents are recorded. This is being expedited by the failure of the responsible authority to provide deer warnings on roads where collisions are likely. The fact that when this has been attempted the signs have been stolen is not sufficient justification for the abrogation of this responsibility.

Recommendation 9
That in known deer ranges roadside warning signs are placed to alert drivers to the possible presence to deer.

There is lack of understanding in the community as to who is responsible for this growing road safety issue. This was instanced in a letter to a newspaper in which the correspondent demanded that farmers must do more to keep "their" deer from being a danger to motorists. Under the current regime it cannot be deemed to be farmers who are at fault.

The spread of deer to peri-urban areas such as around Launceston will lead to increased damage to smaller rural holdings largely found in these regions and even to suburban gardens. This further reinforces the need for more active wild deer control although in these areas it is more difficult due to firearms safety considerations.

Anti-social behaviour caused by deer.

As already noted deer attract poachers. Their presence results in an unsafe place to live and work. For farmers and their employees, especially those in more isolated locations for whom leaving their farm unattended it is a real issue. Related to poaching is the illegal trade in "trophy" heads, a trade that exists and will continue to exist with all its associated issues for land owners and others until adequate resources are applied to stop it or the deer population is significantly reduced. The former would be unlikely to be seen as appropriate given all the tasks the Police and other enforcement agencies have to deal with.

The following press report provides an illustration of the scope of the issue. Note also the reference to illegal firearms accessories.

Mercury 8 June 2013 – Tasmania Police has seized 25 firearms and charged two men in an operation targeting deer poaching and illegal hunting in the Southern Midlands.

Police also recovered about 120 fallow deer antlers (skull caps) and 50 fully mounted fallow deer heads.

Searches at addresses in Campbell Town resulted in the seizure of the firearms and three silencers.

Such is Tasmania's reputation for deer that it is being visited by illegal shooters from other states just compounding the locally generated problem.

Disease Transmission to Humans

"Other social costs accrue from the diseases that deer may transmit to people living in areas in which deer are found. Wild deer may be a source of zoonoses such as leptospirosis and tick-borne disease. Infection is more likely in those coming into close contact with wild deer, such as hunters and agricultural workers. However, the potential for disease transmission becomes an increasing public health issue as wild deer intrude more into outer urban areas." (Jesser 2005)

Financial aspects of wild Fallow deer administration.

The fee revenue from deer licences is in the order of $338,051 (4,975 licences at $67.95 each for 2015 ignoring discounts to concession holders). From this deduct the cost of processing a licence application and its payment so if a figure of $25 is used (a commercial invoice is estimated to cost between $20 and $100 to transact) that leaves $213,676. This is a small amount to cover administering and enforcing compliance with the current legal requirements. Any analysis must take into account attributable costs. The repercussion of the discontinued action against Lyndel Poole is an example.

If the revenue from licence sales does not cover the cost of administering the state's deer management program then deer are a drain on the department charged with this responsibility and a further reason supporting the need for change.

Appendix

NSW Natural Resources Commission, Pest Management Review

For the benefit of the Committee information related to the basis for the NSW NRC Pest Management Review, its draft recommendations that relate directly or indirectly to wild deer and a comment on control are provided. The main section on recommended changes to legislation and regulation for deer is found in Section 6.2, pp 72-76 of the report.

Executive Summary

The Premier of NSW has requested the Natural Resources Commission (the Commission) undertake an independent, state-wide review of pest animal management in NSW. The Premier's terms of reference request the Commission identify opportunities to improve the management of introduced terrestrial and freshwater vertebrate species in NSW, across all land tenures, for environmental, economic and social benefits. This report sets out the Commission's preliminary findings and 27 interlinked draft recommendations for pest animal management. The Commission welcomes community and industry feedback on the draft findings and recommendations to inform its final report to government in June 2016. (P1)

Recommendation 16: Manage deer as a pest animal.

The NSW Government should:

i. exclude all species of deer from the NSW Game and Feral Animal Control Act 2002

ii. include all species of feral deer in a regulation addressing pest animals under the NSW Biosecurity Act 2015. (P9)

Recommendation 22: Actively engage recreational hunting groups in regional pest animal management.

The NSW Government should:

i. engage recreational hunters in the preparation of regional pest management plans and include recreational hunting resources in management programs. (P10)

Recommendation 23: Reduce red tape surrounding recreational hunting on private land.

The NSW Government should:

i. remove the requirement for hunters to be licensed to target non-indigenous species on private land.

ii. promote the use of approved hunting organisation membership and programs to link hunters with landholders

Recommendation 24: Maintain access to markets for pest animals.

The NSW Government should:

i. work with the Australian Government to allow the development of markets, both export and domestic, for pest animals while minimising regulatory impediments. (P11)

Recommendation 26: Expand research capabilities.

The NSW Government should:

i. lead advocacy for and invest in the creation of Centre for Invasive Species Solutions, the proposed successor to the Invasive Animals Cooperative Research Centre (Invasive Animals CRC)

ii. collaborate with the Commonwealth Government and other states and territories to enhance research opportunities and outcomes

iii. support the Centre for Invasive Species Solutions maintaining a foresighting capacity, or in the absence of a national approach, establish a unit to build foresight capability, monitor pest trends, risks and invasion pathways

iv. commit long-term funding to maintain pest animal research capacity to develop and evaluate cost-effective and humane control techniques prioritising:

a. – c other species

d. deer control.

v. support and expand the PestSmart portal as a centralised, accessible, web-based portal for collating research outcomes, data, information and results.

vi. conduct five yearly surveys of invasive species incursions, distribution, abundance and impacts

vii. transparently share results and analysis of these surveys with the community. (P11)

Management arrangements for deer, like other invasive species, need to recognise their pest status and be focused on more effectively controlling their population and reducing their impacts on human health, environment and production. Within these proposed new arrangements, recreational hunting of deer will continue and even be expanded. (P73)

Recreational game hunting has direct and indirect economic value. The historical and current legislative approach to deer management reflects this importance. However, the use of recreational hunting as the primary population control measure for deer is ineffective. (P74)

Shooting is often adequate to control or maintain numbers of small or otherwise constrained deer populations. However, shooting is proving inadequate at containing overabundant deer populations, and the requirement for greater control efforts for deer are vastly underestimated at present. (p74)

A change in status of deer from game to pest would allow more flexibility to manage the impacts of overabundant and potentially overabundant populations or where deer are a known or a potential hazard. This can be achieved by firstly amending the NSW Game and Feral Animal Control Act 2002 to remove deer as a game animal, followed by listing deer as a pest in the new biosecurity regulatory framework. (p76)

A notable number of submissions suggested there is a pressing need for deer to be transitioned from game status to pest status and highlighted that deer are an emerging threat. This was particularly mentioned in relation to road and train accidents. The Australian Deer Association opposed this transition. (P15)

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