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Submission to Regulatory Impact Statement for Victoria's Draft
Wildlife (Game) Regulations 2012

Rod Campbell – Economists at Large
Richard Denniss – The Australia Institute

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Report prepared by:

Economists at Large Pty Ltd
Melbourne, Australia
www.ecolarge.com
research@ecolarge.com
Phone: +61 3 9005 0154
Fax: +61 3 8080 1604

The Australia Institute
Canberra, ACT, Australia
www.TAI.org.au
Phone: +61 2 6206 8700
Fax +61 2 6206 8708

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Summary

A regulatory impact statement (RIS) relating to new hunting regulations in Victoria is currently open to public comment. The information contained in the RIS is inappropriate for decision making purposes due to the existence of severe methodological deficiencies and the failure to present evidence within a meaningful context. The approach used in the RIS is inconsistent with general economic practice.

Despite the Department of Treasury and Finance stipulating clear steps for carrying out cost benefit analyses in Regulatory Impact Statements the calculations used for estimating the costs and benefits of the new hunting regulations are severely flawed.

The RIS claims that benefits of \$96m associated with expenditure by hunters should be included when the correct measure of benefit, consumer surplus, suggests benefits of \$10.8m - \$17.6m.

Estimates of costs in the RIS are similarly flawed and ignore the non-market values that Victorians hold for wildlife and natural resources. Surveys of community attitudes to hunting suggest that the vast majority of Victorians are opposed to game hunting on ethical and environmental grounds. The continuation of hunting represents a loss of welfare to this majority of Victorians. Economic studies relating to non-market valuation, including examples from Victoria, suggest that these values are significant. If Victorian households were willing to pay 11 to 19 cents per week to end game hunting, this would outweigh the \$10.8m - \$17.6m benefits to hunters.

The result of these errors is that the RIS provides a wild overstatement of the value of game hunting to Victoria. If an approach more consistent with mainstream economic practice was adopted, it would be clear that the value of the regulations to Victoria is small and possibly negative.

Rather than using the standard approaches outlined by the Department of Treasury and Finance, the RIS uses “multi criteria analysis”, an approach not favoured by Treasury, the VCEC or prominent economists¹.

We recommend a revision of the RIS before the regulations are adopted.

¹ Government of Victoria. 2011. *Victorian Guide to Regulation*. Department of Treasury and Finance, Melbourne.

Introduction

Hunting in Victoria is regulated under the Wildlife (Game) Regulations 2001². These regulations permit the seasonal hunting of otherwise protected species of ducks, quail and deer. These 2001 regulations will expire in September 2012 and are to be replaced with new regulations. Draft regulations and a Regulatory Impact Statement have been prepared and are currently open for public comment. This document is a collaboration between Economists at Large and The Australia Institute (TAI) civil society organizations with interests in economics and the public interest and animal welfare.

We believe that the Regulatory Impact Statement (RIS) conducted by the Department of Primary Industries (DPI) has many shortcomings that make it inappropriate for decision making purposes. Because of these shortcomings it is difficult to be confident that the proposed regulations serve the interests of the Victorian public. These shortcomings relate to:

- RIS methodology
- Inappropriate calculation of benefits, overstating the value of game hunting
- Inappropriate calculation of costs, particularly with relation to lack of consideration of animal welfare

All these shortcomings serve to overstate the benefits of the proposed regulations which permit and manage hunting of game species. We believe that the value of these proposed regulations is low and possibly negative, reflecting the widespread public opposition to game hunting, particularly duck hunting. Without a supplementary RIS to address these shortcomings, we believe it is impossible to demonstrate a net benefit to Victoria and that the regulations should be rejected.

Methodology of Regulatory Impact Statement (RIS)

A RIS is a form of cost-benefit analysis for proposed regulations. Guidelines for conducting RIS have been published by the Department of Treasury and Finance, with a step-by-step guide for implementation (see Government of Victoria (2011) table 5.1, p70). Those relevant to these regulations are:

- Identification of the problem or issue to be addressed
- Specify the desired objectives of the regulation
- Identify viable options to achieve the objectives
- Assess the costs and benefits of the options
- Identify a preferred option

² http://www.austlii.edu.au/au/legis/vic/consol_reg/wr2001224/

The RIS carries out these steps, but in a manner which the Victorian Competition and Efficiency Commission (VCEC) described as “subjective”³. We agree with that part of the VCEC’s analysis and suggest a more objective approach below.

Identification of the problem or issue to be addressed

The RIS correctly identifies that without regulation several types of market failure will result in inefficient management of Victoria’s wildlife. These failures include:

- Sustainability
- Animal welfare
- Public safety

The RIS outlines how “government intervention may be justified on animal welfare grounds” and that “in recent decades there has been a growing awareness of animal welfare issues”. However, in stating “There is a general community expectation that game hunting is conducted ethically and in a manner that minimizes suffering to animals”, the RIS overlooks studies that suggests that the community would prefer that hunting of game animals did not occur at all. Roy Morgan Research (2007) found that 87% of surveyed Victorians believed duck shooting should be banned. The failure to include such data on the attitudes of Victorians has significant implications for capacity of the RIS to objectively present the likely costs and benefits associated with regulatory change designed to increase the amount of an activity deemed undesirable by the vast majority of the community.

Specify the desired objectives of the regulation

The RIS identifies the objectives of the regulations:

The objectives of the proposed Wildlife (Game) Regulations 2012 are to provide for the efficient and effective management of game hunting in Victoria

By “efficient”, we assume the authors of the RIS mean economic efficiency, which is measured through evaluation of all economic costs and benefits. Cost benefit analysis is the economic tool that is typically used to measure efficiency from the perspective of economic welfare (Government of Victoria 2011; Gillespie and James 2002). However, the RIS presupposes the efficiency of continued hunting rather than present data or analysis that supports such a conclusion.

Other stated objectives include:

continued sustainable, equitable, humane, ethical and safe recreational hunting opportunities

Again, the RIS seems to presuppose the conclusion that the continuation of hunting is in the interests of Victoria.

³ <http://www.dpi.vic.gov.au/game-hunting/about-game-hunting/legislation-and-regulation/game-regulations-consultation/vcec-letter>

Assess the costs and benefits of the options

With sound cost benefit analysis, the presupposition of the efficiency of continued hunting may not matter. If an appropriate base case scenario was established and then compared to the costs and benefits of various regulatory options, a suitable recommendation on appropriate regulation would still be achieved. The RIS correctly established the base case for the assessment:

The 'base case' describes the position that would exist in the absence of the proposed Regulations. It is necessary to establish this position to make a considered assessment of the incremental costs and benefits of the viable options.

Given the operation of the Wildlife Act 1975, the base case for purposes of analysis in this RIS is represented by the situation in which no game hunting could legally occur in Victoria. This is because the Act prohibits the hunting or taking of wildlife unless otherwise authorised.

Unfortunately, the identification of relevant costs and benefits of the various regulatory proposals uses methods contrary to economic best practice, as summarized in the "preferred option" section of the RIS:

As noted, the base case describes a situation in which no game hunting would exist in Victoria. The Victorian Government in 2008 estimated that game hunting contributes around \$96 million to the Victorian economy. Given that the annual cost of the regulations is in the order of \$1.3 million (PV) and the benefits associated with game hunting in Victoria are likely to be in excess of \$96 million, it is apparent that the benefits associated with the proposed Regulations outweigh the costs.

This statement demonstrates a fundamental misunderstanding of standard economic analysis and the appropriate methods of calculating costs and benefits. It completely ignores the existence of external costs associated with hunting and conflates expenditure on an activity with a net increase in economic welfare. Some of these are corrected below.

Flawed measurement of Benefits

The \$96m figure cited above comes from an unpublished 2008 survey of hunters' expenditure⁴. When conducting cost benefit analysis for the Victorian community, it is not appropriate to simply conflate the expenditure of a group with the benefit of an activity to the community for the simple reason that if money were not spent on one activity it would instead be spent on another activity. That is, if hunting was banned the money spent by hunters would not be 'lost' to the Victorian economy, rather, it would be spent on something else.

The Department of Treasury and Finance are clear on this point:

⁴ Note that this survey is not publically available and the figure seems to differ from that of \$70m as claimed by the relevant minister last year (Walsh 2011).

When assessing costs and benefits, it is important to identify those that are purely transfers (or redistribution) from one group of the community to another, and those which do not lead to an overall increase or decrease in costs/benefits when considered from the viewpoint of society as a whole. (Government of Victoria 2011)P83

The appropriate measure of benefit of duck hunting is the “consumer surplus” of the hunters. Consumer surplus represents the benefit of the activity over and above what the consumers had to pay for it. Various branches of economics have derived tools for measuring consumer surplus and a substantial body of literature has developed measuring consumer surplus for hunting trips, particularly in the USA (see for example U.S. Fish and Wildlife Service (2005) who conduct regulatory impact assessment on bird hunting regulations in the USA using exactly this approach, or more recently Duffield, Neher, and Patterson (2011). In Australia, Whitten and Bennett (2001) estimated consumer surplus for duck hunting in South Australia at between \$27 and \$44 per hunting day in 2001 dollars, representing \$34 to \$59 in today’s terms. At these rates, an estimate of the annual benefit from the DPI’s estimated 300,000 hunting days is \$10.8m to \$17.6m (\$8.1m to \$13.2m in 2001 dollars).

Annual hunting days in Victoria	300,000
Consumer surplus for 1 day hunting	\$34-\$59
Annual benefit of hunting in Victoria	\$10.8m - \$17.6m

The inappropriateness of the \$96m figure is easily illustrated by considering what would happen if game hunting was prohibited. Rather than spending their money on hunting game species, hunters would more than likely substitute this with spending on similar leisure activities, for example, hunting of pest species; fishing, camping; 4WDing or other recreational activities. All of this expenditure is just as “beneficial” to the Victorian economy as hunting. Consumer surplus is a measure of the extra amount that game hunters would be willing to pay for this activity, rather than engage in other activities, and is therefore the appropriate figure to consider as a benefit.

Flawed measurement of costs

The RIS inappropriately considers the cost of the regulations to be the expenditure by hunters on permits, regulation and non-toxic shot. All of these items are transfers from hunters to other sectors of the Victorian community, government or ammunition businesses. Except perhaps where the alternate shot is an import and results in reduced spending in Victoria, none of these are a “cost” to the community, merely a transfer between members. Indeed, the permits are an indication of the value that hunters place on their hunting and, as such, reflect an effort to capture the consumer surplus described above.

There is, however, an economic cost associated with game hunting that is not considered at all by the RIS. This relates to the economics of animal welfare and the depletion of natural resources. Where members of the community feel an agrievement or loss of their own welfare in relation to game animals being hunted, or any other natural asset being destroyed, this represents an economic loss. The economic nature of human preferences for animal welfare and the preservation of natural resources are easily observed in various market transactions – free range eggs, expensive dog food, membership of animal welfare groups. That is, clearly people are willing and able to pay to improve animal welfare and, from an economic point of view, such willingness and ability to pay is clear evidence that a reduction in animal welfare through hunting results in a reduction in the welfare of some members of the community. As discussed above, opinion polling suggests that, in fact, the vast majority of the Victorian population have their welfare reduced by hunting.

While some aspects of animal welfare come into play in markets, most do not. As anti duck-hunting activists are unable to “purchase” duck welfare in a market, some try to improve welfare through non-market means, such as taking part in protests. For the 87% of Victorians who are opposed to duck hunting (Roy Morgan Research 2007) the costs of the harm to animal welfare and the adverse impact on the environment can be estimated through non-market valuation methods.

Non-market valuation to reflect community values for wildlife and natural resources is regularly carried out and incorporated into policy and regulatory decisions. The most famous example is (Carson et al. 1992) who estimated the community’s loss of “passive use values” in relation to the Exxon Valdez oil spill’s impact on wildlife and the environment. This report contributed to the calculation of Exxon’s liability for the spill. Australia’s most well known use of non-market valuation of wildlife and the environment is (Carson, Wilks, and Imber 1994) who’s assessment of the public’s values attached to the Kakadu Conservation Zone contributed to the Federal government’s decision not to approve the Coronation Hill Mine in Kakadu. Victoria recently used a study by Bennett et al. (2007) on the community values of wildlife and forests to justify the declaration of the state’s red gum national parks.

If the Parliament of Victoria is to be well informed before making a decision on the new hunting regulations the authors of the RIS need to conduct a non-market valuation study of the value Victorian’s place on ducks and duck hunting to understand if the regulations are indeed efficient.

Even in the absence of a new study, an understanding of non-market valuation literature would provide a guide as to how to estimate this cost. For example, Bennett et al. (2007) found that Victorian households were willing to pay between \$3.96 and \$8.39 per household per year to ensure the protection of 100 pairs of parrots.

Victoria has around 2.1million households⁵, around 87% of which appear to be opposed to game hunting (Roy Morgan Research 2007). If these households are willing to pay between \$5.91 and \$9.63 per annum (11 to 19 cents per week), then the benefits to the majority of the community associated with ending hunting would exceed the benefits to the minority of its continuation. Given Bennett et al’s (2007) results for 100 pairs of parrots, it seems likely that Victorians would be willing to pay this amount to protect hundreds of thousands of ducks and other animals.

⁵ <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1367.2Feature+Article1Jun+2010>

Number of households in Victoria	2,100,000
Percentage of Victorians in favour of a ban on duck hunting	87%
Households opposed to duck hunting	1,827,000
Annual required willingness to pay per household to offset benefits of hunting (\$10.8-\$17.6m)	\$5.91 to \$9.63
Required willingness to pay in dollars per week	\$0.11 to \$0.19

Identify a preferred option

Under standard practice, the RIS would have compared the consumer surplus benefits of hunters, likely to be between \$10.8m - \$17.6m, with the community's non-market loss, measured by willingness to pay to end game hunting. If Victorian households' willingness to pay to end duck hunting exceeds 19cents per week, then the preferred option would be a rejection of the proposed regulations. The RIS, however, did not conduct this standard cost benefit analysis, yet recommends the adoption of the proposed regulations anyway. Rather than conducting cost benefit analysis in the standard manner, the RIS uses "Multi Criteria Analysis"

Multi Criteria Analysis (MCA)

Multi Criteria Analysis involves the analyst selecting what they consider to be the priorities and impacts of a project or policy proposal and assigning a score to each potential impact. These scores are often in differing units or in an arbitrary points-based system. The analyst also assigns weighting to each impact as they see fit. In the hunting regulations RIS, three priorities and impacts were selected and weighted to "broadly reflect the government's objectives":

Criterion	Weighting
Sustainable management of game resources	25
Safe and humane hunting	25
Cost	50

MCA is not a methodology favoured by economists due to its subjective and largely arbitrary methodology and lack of theoretical rigour. The Department of Treasury and Finance is also of this opinion:

Multi-criteria analysis is useful where it is not possible to quantify and assign monetary values to all the impacts of an option. However, this approach, while helpful, is still a second best method of analysis compared to quantitative estimates of costs and benefits, particularly in areas where adequate data should be available. Government of Victoria(2011) p85

As indicated above, there is a broad economic literature in relation to most costs and benefits associated with these regulations and a proper cost benefit analysis should have been conducted. Other prominent Australian economists are still less charitable about MCA:

Multi-criteria analysis ... is fundamentally flawed in principle, and is open to abuse by special-interest groups. Its increased use poses a significant risk to the quality of policy formulation by Australian governments. (Dobes and Bennett 2009) p7

The heavy reliance on MCA in drawing the conclusion that the new regulations are in the interest of the community significantly diminish the credibility of that conclusion.

Conclusion

The Regulatory Impact Statement relating to the Wildlife (Game) 2012 regulations is deeply flawed. The calculations it uses for estimating the costs and benefits of the regulations are done in a manner contrary to standard economic practice and result in a wild overstatement of the value of game hunting to Victoria.

If an approach more consistent with mainstream economic practice was adopted it would be clear that the value of the regulations to Victoria is far smaller than that claimed by the RIS and possibly negative.

The standard approach would use consumer surplus as a measure of benefit to hunters and would investigate the non-market aspects of costs to the Victorian community that game hunting imposes. Instead the RIS uses “multi criteria analysis”, a flawed and subjective methodology, to produce an inefficient result.

We recommend a substantial revision of the RIS before the regulations are adopted.

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