16 December 2019

Mr Graeme Ford
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Submitted by email: graeme.ford@gma.vic.gov.au

Animals Australia submission regarding the Environmental Conditions Relevant to Duck Shooting in Victoria 2020

Dear Graeme,

Animals Australia appreciates the opportunity to comment on the Game Management Authority (GMA) document 'Considerations for the 2020 duck season' (hereafter, "**Considerations 2020**").

In particular, we hope that following the precedent set last year, stakeholder submissions and presentations will also be considered by representatives from the Department of Environment, Land, Water and Planning (DELWP) and the Department of Jobs, Precincts and Regions (DJPR), as well as GMA staff.

We request that GMA display all submissions on its website as soon as possible in the interests of transparency, rather than waiting until the GMA recommendations have been finalised. This is considered 'best practice' in public consultation processes.

1. Introduction and recommendation

As you will be aware, Animals Australia opposes recreational duck shooting on animal welfare and ethical grounds; there is no necessity for, nor utility to, this practice, and native waterbirds are wounded at high rates due to the nature of shotgun pellet spray patterns and the inaccuracy of shooters. Recreational duck shooting is therefore inconsistent with the Victorian Government's Animal Welfare Action Plan which states that 'Animal welfare is a high priority for the Victorian Government'[1] and so (in our strong view) it should no longer be permitted.

In addition to the animal welfare imperative to stop recreational duck shooting, at present, native waterbirds (including 'game birds') are at perilously low numbers due to long-term drier conditions, elevated temperatures and the resulting increased evaporation that all contribute to depleted wetland habitat across the eastern states of Australia. The 'Aerial Survey of Wetland Birds in Eastern Australia - October 2019 Annual Summary Report' (hereafter, "**EAWS 2019**") states the current situation starkly:

- Although overall total eastern states waterbird abundance increased marginally by 8% from 2018 levels, increases only occurred in the northern states with Victorian waterbird abundance decreasing by 40% from 2018 levels.
- Drought, fire and habitat loss have created a barrier across most of NSW which will prevent birds migrating from north to south for the foreseeable future.
- 2019 has been exceptionally dry and significant rainfall deficiencies are continuing to affect most of Australia.
- Spring was the driest on record across Australia.
- Year-to-date rainfall has been the lowest on record for southern Australia.

[1] The Hon. Jaala Pulford MP, 'Animal Welfare Action Plan', page 3. Retrieved from: http://agriculture.vic.gov.au/agriculture/animal-health-and-welfare/animal-welfare/animal-welfare-action-plan

- The Murray-Darling Basin has experienced its worst 2 to 3-year drought period in over 120 years.
- 2019 has also been very warm *(Australian maximum temperatures second warmest on record; NSW warmest year-to-date on record; Victoria had its hottest day on record; Queensland had its third warmest year on record).*
- Wetland area was the lowest since surveys began.

The current and unprecedented bushfires provide a graphic and tragic illustration of, and further contribution to, the environmental stress which is affecting our community and wildlife. Meteorological projections offer no respite during summer (Considerations 2020, pp.9-15). The very last thing waterbird populations need, while at precariously low levels, is further 'predation' in the form of recreational duck shooting.

We recommend a complete cancellation of the 2020 season on environmental grounds.

Given these environmental factors and the impact of climate change on our natural environment (including wildlife species), it is of concern that GMA has not included any environmental groups in its consultation with stakeholders. The situation should not merely be a consideration and debate amongst animal welfare experts and shooters. GMA continues to omit the term "climate change" from its 'considerations', yet climate scientists have long warned of increased greenhouse gases leading to warmer, drier trends and lengthening bushfire seasons for the eastern states. This augurs badly for our native ducks. Claims that game ducks are 'resilient to harvesting' are based on last-century studies using decades-old data, before climate change made its presence strongly felt in Australia.

While climate change is the most serious omission in the GMA's reporting, there are also other omissions (see Section 3) and some pro-hunting 'red herrings' (Section 4).

ABC online article[2]

When Sydney scientist Richard Kingsford and his team from the University of NSW began their research in the early 1980s, they clocked up to a million waterbirds in aerial surveys.

"Now it's crashed to less than 100,000," Professor Kingsford said.

"While the birds could have gone elsewhere, it's most likely that they've died." …

Professor Kingsford said in a good year the wetlands would be filled with birds.

"We're seeing much bigger [declines] than I would have expected and that's on the back of 70 per cent declines over the 37 years that we've been doing this survey," he said.

"It is grim, many of the rivers are dry … as everybody knows we've got this gripping drought across the Murray-Darling basin and up into the north and we're just not seeing any wetlands."

The picture is grimmer at another internationally-renowned breeding ground for birds, the Macquarie Marshes, in north-western NSW.

Bushfires ravaged this area in the past few weeks, and where once there were thousands of birds counted, this year the team counted only one black duck.

The region around Moree has been in drought since 2017 and has received just 15 per cent of its average rainfall this year.

[2] Casben L (2019, November 19) 'Waterbird population has fallen as much as 90 per cent in Australia's east, shows 37-year study', ABC Online News. Retrieved from: https://www.abc.net.au/news/2019-11-19/drought-and-water-policy-to-blame-for-water-bird-decline/11715412

Professor Kingsford said with little to no water in the river system around Moree, farm dams are one of the few areas that birds crowd into during bushfires.

"Fires have occurred in the past but are they becoming more regular as our wetlands are drying out, and that means they could be becoming more severe and burning the root system," he said.

2. The critical numbers - in summary form

Total waterbird populations across all eastern states increased slightly (8%) over the previous (2018) survey, but are still well below average. Importantly, Victorian waterbird abundance declined by 40% from 2018 levels (*Considerations 2020*, p34, p35 and p50):

- The increase in other states is small as it's coming off a low base (2018 was a very poor year).
- "*Bird detectability can increase during dry periods as birds concentrate on remaining open wetlands. This may have contributed to the observed increase…*" (*Considerations 2020, p35)*
- There were nine "trainee observers" in the EAWS team this year (p.3), including one from GMA, and it is unknown (to Animals Australia) whether this may have affected counting results.

EAWS 2019 found that waterbird abundance in Victoria (all species combined, Bands 1 to 3) was about half that of the previous year (*Considerations 2020*, p34) which was itself a poor year.

- At a quick glance, the graphs on p34 appear similar. However, the different scales on the bar charts (albeit noted by the designer) fail to clearly illustrate the stark drop in abundance in Victoria.
- *Considerations 2020* does not provide specific information about game duck abundance, by species, by survey band in Victoria (see Section 3). Given the dramatic population slump in Victoria, any slight increase in abundance must have occurred in Queensland (Bands 9 and 10).
- EAWS 2019 found that 50 per cent of waterbirds (all species combined) were concentrated on 11 wetlands, most of which were in northern Australia (EAWS p3; p9) (Fig. 1).
- Given the absence of habitat in central eastern Australia, there is limited opportunity for large-scale movement between north and south *(Considerations 2020*, p50) (Fig. 2).
- Game ducks sheltering in Victoria will be marooned here and effectively subject to "canned hunting" if there is a 2020 duck season – contrary to the principles of "fair chase" extensively discussed[3] in the Regulatory Impact Statement for the *Wildlife (Game) Regulations 2012* that currently apply.

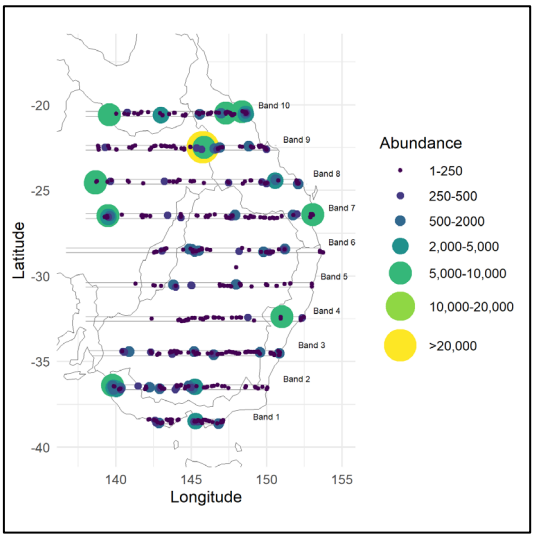

Figure 1. Waterbird distribution in Eastern Australia. Image from EAWS 2019, page 9.

[3] See pages 24-26; 68 and 105 of the RIS.

Wetland habitat area is at the lowest point for 37 years of the survey project (EAWS 2019) – a reflection of unprecedented drought.

- *"The fundamental requirement for healthy populations of waterfowl is habitat."* –Submission from Field & Game Australia (FGA) to GMA, Dec 2017, p.2.

"Long-term trends are more informative for predicting population status than year-to-year fluctuations" (*Considerations 2020*, p42)

- Examination of the game duck abundance graphs on pp35-36 of *Considerations 2020* shows that the 2019 figure lies well within the band of low readings from the Millennium Drought (late 1990s to 2010[4]).
- The long-term population trend is clearly downwards (Section 3, Fig. 14).

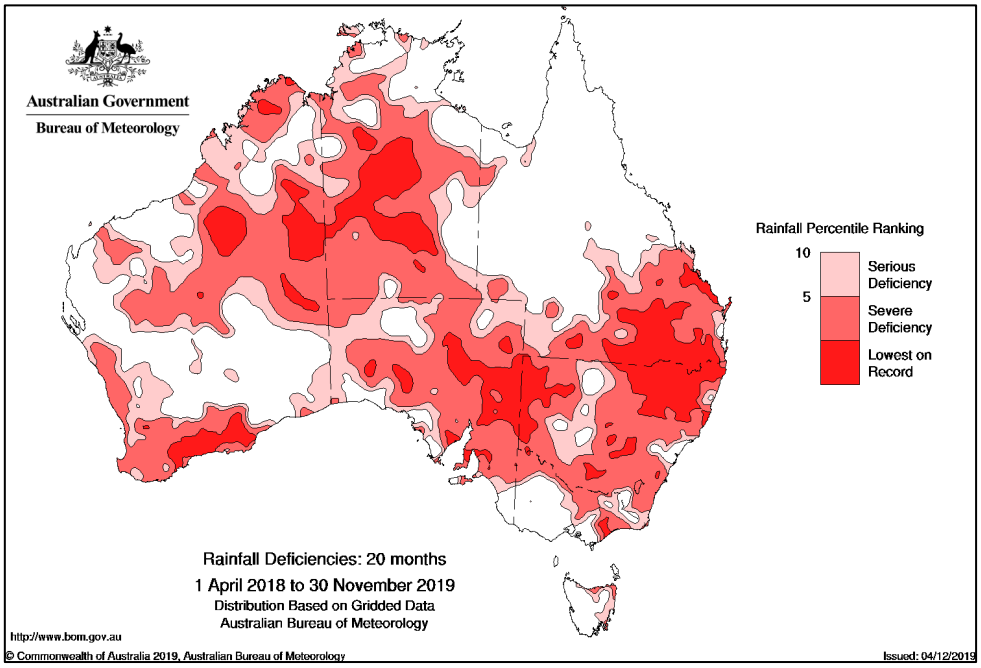

Figure 2. The swathe of drought across central eastern Australia. The resulting absence of habitat effectively prevents game ducks from moving between Victoria and Queensland. Bushfires are now in these drought-stricken groups. Image from Bureau of Meteorology[5].

3. Omissions

We are concerned about the following omissions from the *Considerations 2020* document and therefore that it fails to provide a comprehensive and adequate briefing in each of the following areas:

- Temperature trends
- Breeding data for game ducks
- Time series data for species of game ducks
- Discussion of the serious long-term decline in native duck populations
- Consideration of the wider environmental issues related to a duck shooting season – whether a 'restricted' season or a full season
- Reliable data for past seasons.

[4] http://www.bom.gov.au/climate/updates/articles/a010-southern-rainfall-decline.shtml
[5] Australian Government Bureau of Meteorology, 'Drought - Rainfall deficiencies and water availability, 20-month rainfall deficiencies map'. Retrieved from: http://www.bom.gov.au/climate/drought/

We discuss each of these omissions in detail below.

Temperature trends

This year, three pages of *Considerations 2020* have been devoted to the Lake Eyre basin which partially filled – before drying again. In our view this appears to over-emphasize a single and temporary event which cannot reverse the long-term trend. Unfortunately, elevated temperatures mean that wetlands dry more quickly than in the past. EAWS 2019 found a record low for wetland area, but even those areas will dry further over summer. Temperature trends for Australia are startling but have been omitted from the GMA's analysis – which as mentioned above, consistently avoids any links to climate change:

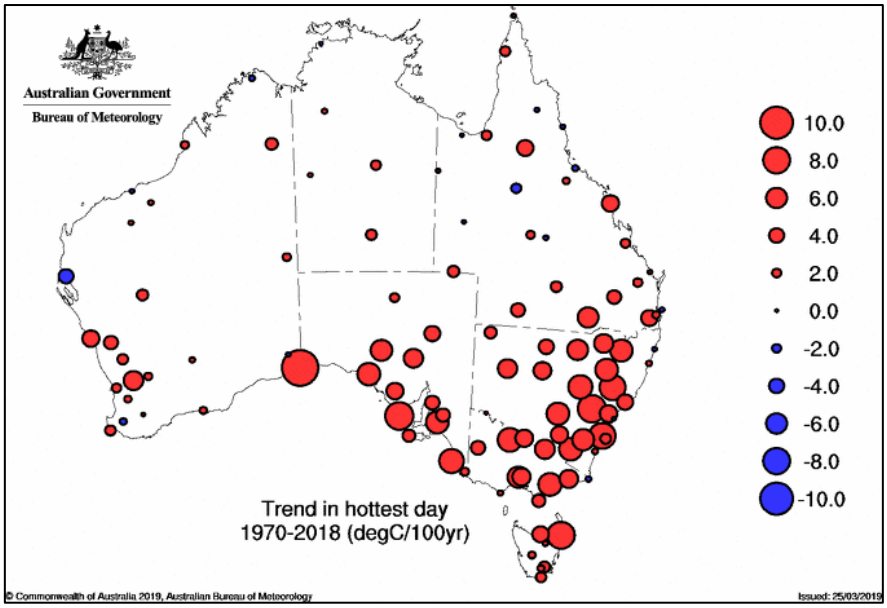

Figure 3. Trend in hottest day 1970-2018 (degC/100yr). Image from Bureau of Meteorology[6].

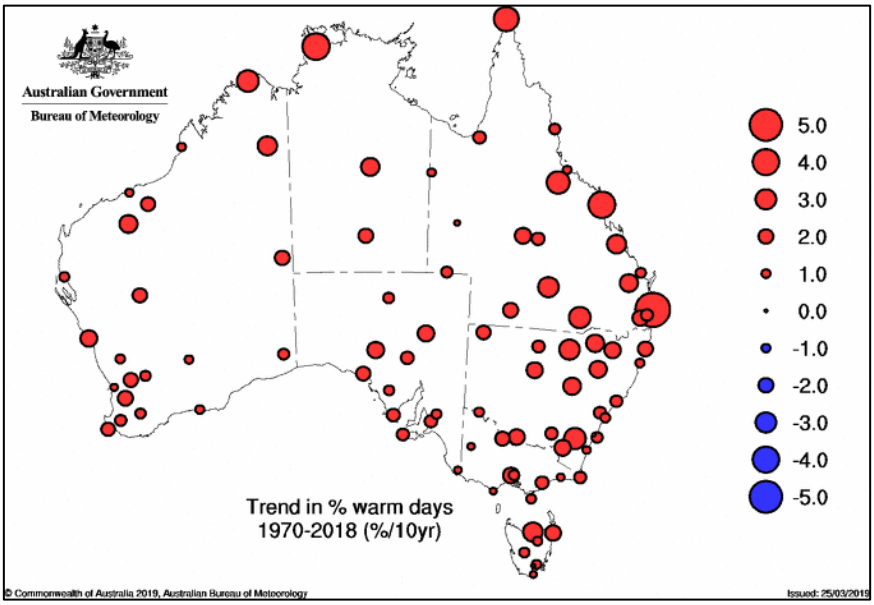

Figure 4. Trend in % warm days 1970-2018. Image from Bureau of Meteorology[7].

[6] Australian Government Bureau of Meteorology, 'Australian climate extremes - Trend maps'. Retrieved from: http://www.bom.gov.au/cgi-bin/climate/change/extremes/trendmaps.cgi?map=TXmx&period=1970

[7] Australian Government Bureau of Meteorology, 'Drought - Rainfall deficiencies and water availability, 20-month rainfall deficiencies map'. Retrieved from: http://www.bom.gov.au/cgi-bin/climate/change/extremes/trendmaps.cgi?map=TX90&period=1970

Breeding data for game ducks

As GMA will soon make a recommendation regarding another season for shooting game ducks, it's relevant to know whether these '**game**' species have been breeding. No such information is provided in *Considerations 2020* (as has been the case in the past also). In the past, we have obtained some relevant data directly from the Kingsford/UNSW research team, via personal request. It is unacceptable that this information is omitted from GMA's *Considerations* each year.

Considerations 2020 devotes three pages (pp.38-40) to breeding but fails to indicate whether the EAWS found any evidence of game ducks breeding. It's irrelevant and misleading then to say (p.39) that "Most of the breeding occurred in Band 1" – if none of that breeding observed by EAWS included game ducks. Regardless, if there was any breeding of game species it was minimal as *Considerations* (p.38) does indicate that of the six species observed to have bred, 97% was attributed to Black Swans and Straw-necked Ibis (non-game).

On p40, GMA provides figures from its opening weekend bag survey, which found a wide range (from 14.6% to 44%) of immature birds in bags. However, young birds are particularly vulnerable to shooters, having no previous experience of that fear or how to avoid that danger. Thus, the relatively high percentage of shot juveniles is a poor measure of breeding rates.

However, on the last page of *Considerations 2020*, we note one of the most important statements of the entire document:

> *"Excluding 2016, there has been very little large-scale waterbird breeding since 2013 and the existing populations constitute core breeding stock."*

If these 'core breeding stock' birds are permitted to be shot in 2020 it will further destroy the capacity to rebuild when more favourable conditions return. Note there is still no specific reference to game ducks.

Time series data for game duck species

In EAWS 2018 and EAWS 2019, Kingsford and the UNSW team have introduced trend analysis**.** <u>All four of the major indices - total waterbird abundance, breeding index, number of species breeding, and wetland area index - show statistically significant declines over time for the period 1983-2019.</u> The long-term survival of Australia's native waterbirds (including those declared 'game' species) is threatened. The dramatic decrease in the long-term average for game bird abundance is shown in Fig 5 below[8]. Recent years have been so poor that the "blip" from rains that ended the 'Millennium' drought has now been dissipated. This is highly pertinent as GMA has a mandate to promote "sustainability and responsibility in game hunting in Victoria".

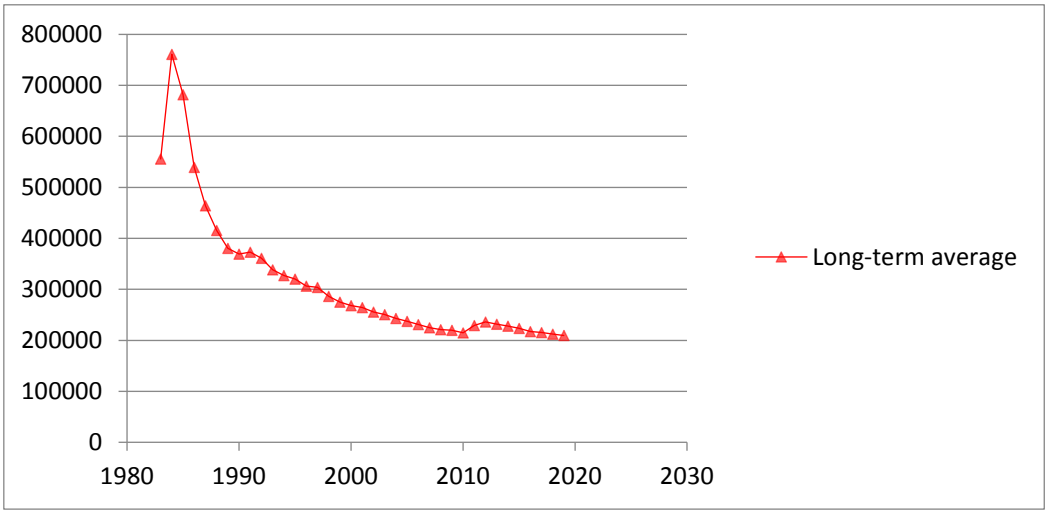

Figure 5. Long-term average: game bird abundance. Graph produced by Animals Australia using game duck abundance data from annual EAWS surveys.

[8] Graph produced by Animals Australia, using game duck abundance data from annual EAWS surveys.

Unfortunately, the GMA's *Considerations* documents omit the time series graphs for game duck species. As a stakeholder, we request that these graphs be included. We also seek the reinstatement of the former time series graphs by species and Survey Band. It is extremely difficult to study any long-term trends from the bar graph on p.37 of *Considerations 2020*.

Discussion of the serious long-term decline in game ducks

The 2019 EAWS Summary report states (p.3):

"Most game species abundances were well below long term averages, in some cases by an order of magnitude; six out of eight species continue to show significant long-term declines (Table 3)."

This decline is a serious concern for sustainability. It is unacceptable that this key finding was omitted from the GMA's *Considerations 2020* document. The following time series graphs (extracted from EAWS 2019) provides this key information. While the index is not an absolute count, it is based on the aerial count, and measures trends.

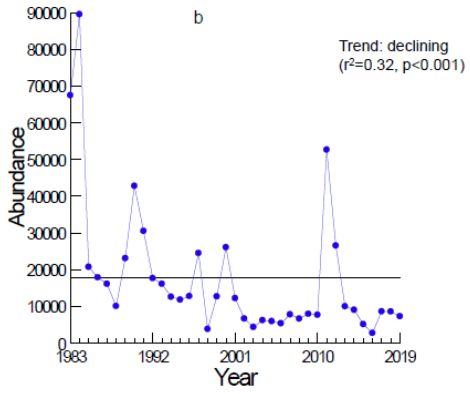

Figure 6. Pacific Black Duck: time series. Average index approx. 18,000; 2019 'harvest' 83,031

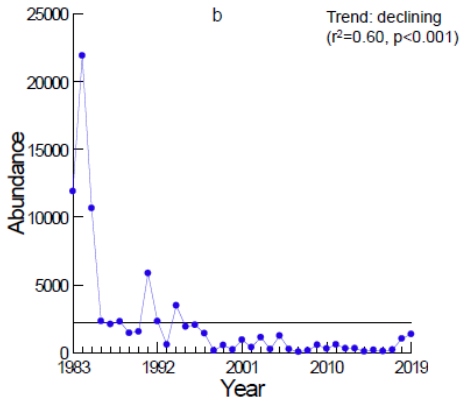

Figure 7. Australasian Shoveler: time series. Average index approx. 2,300; not permitted in 2019 'harvest'.

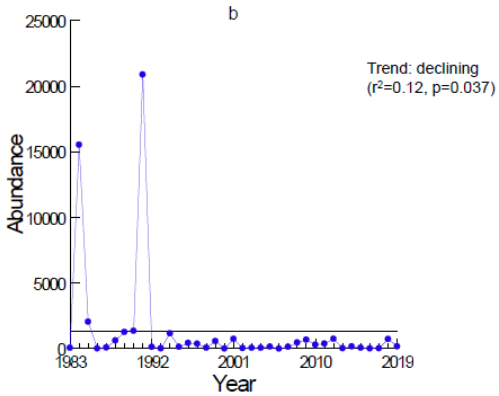

Figure 8. Chestnut teal: time series. Average index approx. 1,500; 2019 'harvest' 13,528.

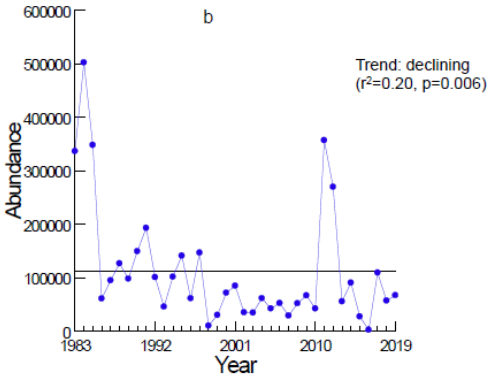

Figure 9. Grey Teal: time series. Average index approx. 115,000; 2019 'harvest' 63,421.

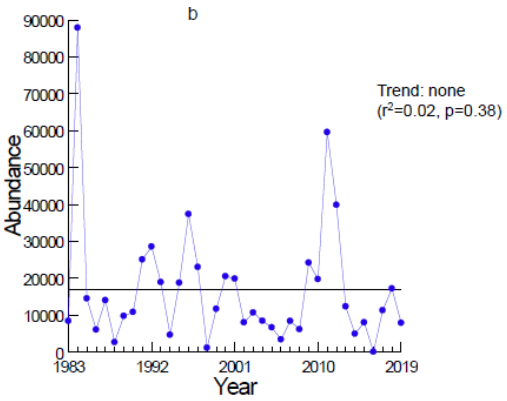

Figure 10. Hardhead: time series. Average index approx. 17,500; 2019 'harvest' 621.

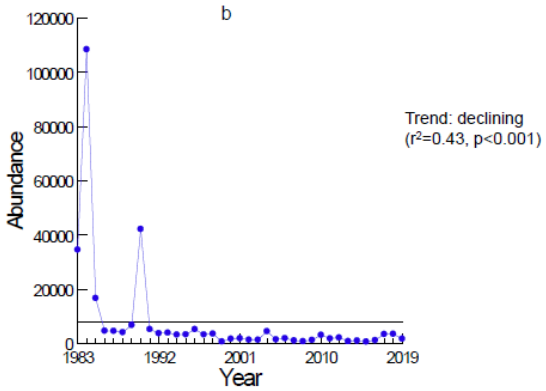

Figure 11. Mountain Duck (Shelduck). Average index approx. 8,000; 2019 'harvest' 8,685.

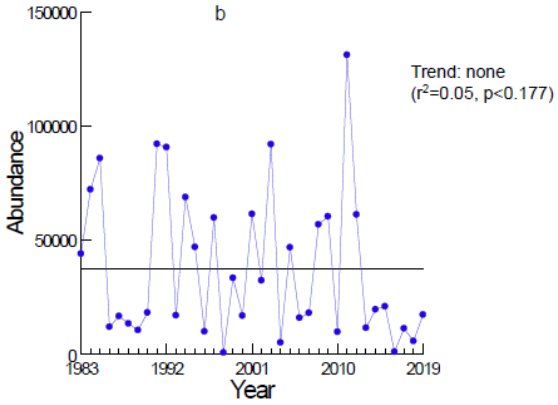

Figure 12. Pink-eared Duck. Average index approx. 35,000; 2019 'harvest' 3,103.

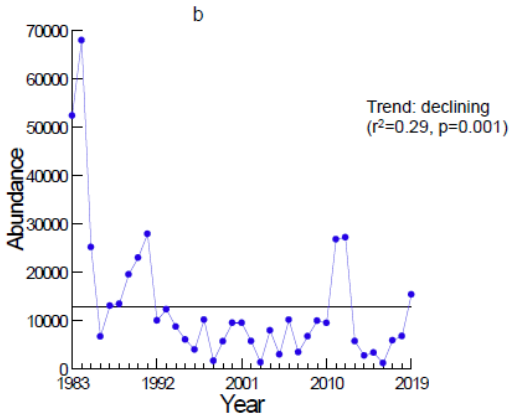

Figure 13. Australian Wood Duck. Average index approx. 13,000; 2019 'harvest' 57,588.

Of all these species, only the Wood Duck has nudged above the long-term average, and for the first time in 7 years; this is not a sustainable recovery. All the other game duck species populations remain in dire straits.

Note that there seems little relationship between these time series graphs and the 'harvest' numbers claimed (self-reported surveys) by Victorian shooters; there is no independent verification of their claims. However, these time series graphs are for all bands of the survey; it would be more helpful to have the data for individual Victorian bands. The pink-eared duck represented only one per cent of the 2019 Victorian 'harvest' compared with 12% in 2017. However, on the 2017 opening weekend, more than half the pink-eared ducks shot were juveniles, undermining the potential recovery from favourable conditions around that time.

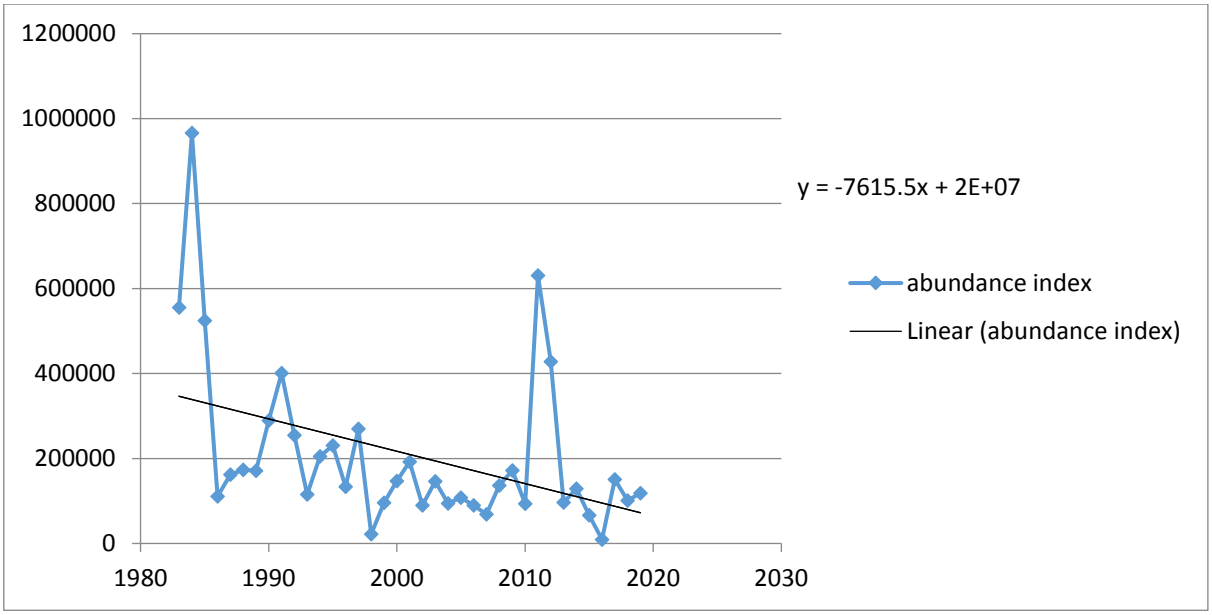

Figure 14. Game Duck abundance index: 1983-2019. Long-term trend of decline for all game species combined. Animals Australia performed this regression analysis for the annual EAWS data on game duck abundance.

The wider environmental issues – even for a 'restricted' duck shooting season

The impact of climate change and its dire consequences - unprecedented drought, unprecedented wildfires in a record-length fire season, and a record low wetland area index – have magnified this issue to an ecological issue with wide significance.

But even two years ago, there were serious environmental consequences of the 2017 duck shooting season. The illegal duck massacre at Kerang wetlands on the opening weekend gained media attention. But there was environmental damage elsewhere. This is best illustrated in the words of a highly credible eye-witness (refer box, Fig. 15) whose name we shall suppress (it is widely understood that those who speak out against shooters run the risk of retribution).

The 2017 independent review of GMA by Pegasus Economics[9] ('Pegasus review') was scathing in its assessment of GMA's performance as a regulator. Even with additional staff provided by the government's recent injection of funds to GMA, it is impossible for officials to be everywhere at all times (see for example, Figs 16 and 17).

The witness in Fig. 15 gives a convincing account of how powerless regional residents feel in relation to the regulation of duck shooting. GMA's media releases advise people to call Crime Stoppers if they see illegal behavior. However, an FOI request[10] revealed that police do not keep records of complaints relating to duck shooting, so it is impossible to assess the effectiveness of such action. In the situations mentioned in Fig. 15, the shooters would likely have ceased their illegal activities before any authorities were dispatched to investigate.

[9] https://www.gma.vic.gov.au/__data/assets/pdf_file/0011/481682/Assessment-of-the-GMAs-compliance-and.pdf
[10] Victoria Police, File reference 66341/19: final response to FOI request lodged on 8.5.19

Figure 15. Environmental impacts of duck shooting - an eye-witness account.

"Duck shooting has been disastrous for our local wetland species. I live near a significant seasonal wetland and after years of drought, our wetland remained full for the entire year for the first time in many years during 2017. Leading up to the 2017 duck shooting season, bird life was prolific on our wetland, many species nested for the first time there in years and the season was good for them, until the shooting started. From opening weekend for three weeks solid, beginning before dawn until after dusk, our wetland was a war zone. Nesting birds such as Cormorants, Darters and Night Herons abandoned their nests and young. The week before opening, the wetland was a naturalist's paradise. Species allowed me to pass by in my tinny with electric motor, unperturbed by my presence. A week later, gunshot scared all life that wasn't killed, and it left the wetland. I could not get out on my boat for 3 weeks until the shooting abated and by that time, the silence was deafening. All birds had disappeared and did not return, despite the wetland remaining full of water, until 3 months or more later and then only a handful of the species returned; many did not and still have not to this day returned.

2018 duck shooting opening saw roughly 30 ducks on our wetland. A dismal number that had never recovered from the previous shooting season. Within opening day, there were no ducks on the wetland, but despite this, the shooting continued; in fact a duck shooting camp decided to shoot continuously for half an hour from their campsite after dark, after 9pm that night, across the water, directly towards a homestead. Neighbours and I called the police as we could not get in touch with the GMA after hours on a Saturday night. Local police said they did not have the resources to send anyone out that night and it wasn't until I drove down and faced my headlights towards the water in line with their campsite across the wetland that the shooting ceased.

During both the 2017 and 2018 season, shooters have committed the crime of illegal timber removal. This act was done on a commercial scale with trailer loads of furniture slabs and old growth burls taken out of the forest. In 2018 they even had a portable mill with them to cut the slab lengths with ease. As timber removal was a serious crime performed by the shooters the season before, Parks Victoria made their presence felt on opening morning but did not return, despite phone calls to report the chainsaw and mill activity. Parks Victoria did not have the resources to return the following day when the timber removal began. The GMA and police were present on the Sunday morning of opening weekend but did not find any illegal activity. The shooters knew once the authorities left, they would not be checked upon again and this is when once more, the illegal timber removal began. Entire tree trunks were milled into commercial timber slabs.

Each season the locals here are left to pick up the pieces. Large quantities of rubbish are left at shooters' campsites and actually in the water. In 2017 I discovered two holes which had been dug and back filled right on the water's edge where I put my boat in, one with a plastic shopping bag full of spent shot gun cartridges and the other full of bird remains, including remains of an illegally shot Nankeen Night Heron. In 2018 there were spent cartridges left on reed stems protruding from the water, intentionally carefully placed there. The majority of the rubbish is used toilet paper, empty alcohol cans and bottles and spent cartridges. In 2017 the local kindergarten kids while attending bush kinder came across many bird remains which upset them.

Duck shooting season means that for the duration of the shooting, no one else can use the wetland - both locals and tourists stay away. Locals who use the area for birdwatching, horse riding, bushwalking and cycling cannot utilise the area for fear of being in the firing line and also the fear of running into aggressive, alcohol fuelled people with firearms and no one allows their children to utilise the area while the shooters are there. I have witnessed many times shooters in boats with gun in one hand, alcohol in the other, also shooting while boat is moving under power with motor unattended. I have witnessed Darter chicks jump out of the nest because shooters have passed too closely in boats. They nest in trees which stand in the water and the chicks were still fluffy with down, too young to leave the nest and when they hit the water they did not resurface. They drowned. I have picked up protected species floating in the water who have been shot, and recovered injured ducks many weeks later from the wetland. Governments need to protect our natural areas and giving permission to shoot our native duck species is allowing a minority group to wreak major environmental damage which affects numerous wildlife species, habitats and also community members who live in these areas."

Postscript: In 2019, the wetland was dry again. There were no ducks and no shooters.

A member of the public has provided photos of regulatory vehicles parked back at their Kerang motel by early afternoon on the opening day of the 2019 season, illustrating the point that enforcing hunting rules is physically difficult and patchy at best:

Figure 16. Photo taken at 1.19pm on 16 March 2019.

Figure 17. Photo taken at 1.22pm on 16 March 2019.

Reliable data from previous seasons

GMA obtains its 'harvest' data from a series of fortnightly phone surveys (200 shooters each fortnight) during the duck shooting season. A separate survey of 400 shooters is conducted at season end to ascertain how many took part in the season at any stage.

This year, there was an obvious discrepancy in the reporting (in *Considerations*), as the opening weekend participation was quoted as 42% yet the overall season participation was only 22%. This was later corrected to a season participation rate of 55%, with the problem attributed to a faulty spreadsheet submitted by the phone survey company.

Information later provided by Arthur Rylah Institute (to Animals Australia directly) suggests that of the 400 shooters in the final survey, 220 actually took part in the season, but 132 of their responses were corrupted and treated as 'non-participant'. It is disturbing that such an error was not detected by GMA and particularly so as this is an important (and politically sensitive) statistic.

A fundamental question then arises about the reliability of such phone surveys. In 2013, the then government undertook a hunter survey that was later used to claim significant economic benefits from hunting (since discredited[11]). However, page 9 of the 2013 survey report[12] acknowledged that one-third of licensed game hunters do not provide a phone number to the regulator. It is not known (to Animals

[11] A 2019 national survey of hunters and shooters confirmed critics' views that hunting and shooting provide minimal NET economic benefit because the money would be spent on other items if not shooting (see p1): https://www1.health.gov.au/internet/main/publishing.nsf/Content/ADE1F41517817F2ACA2584770015A21D/$File/Report-Economic-and-social-impacts-of-recreational-hunting-and-shooting.pdf.

[12] Dept of Environment and Primary Industries, *Estimating the economic impact of hunting in Victoria in 2013:* https://www.gma.vic.gov.au/__data/assets/pdf_file/0010/481717/Estimating-the-economic.pdf

Australia) how many duck licence holders currently provide a phone number, but it raises the question of how representative these surveys are of all duck shooters.

GMA produced an earlier report (July 2019) for stakeholders, and the data in that report was different to the final harvest report, in terms of licensed hunter numbers, opening weekend 'harvest' and participants – each measure being too high. Animals Australia believes the figures provided by GMA in regard to harvest and hunter participation for the 2019 season may not be reliable.

The following are further examples of concern regarding the GMA's capacity to deal appropriately with numerical/data issues:

- On p36 of *Considerations 202*0, there is a plot of rolling averages for game duck abundance, based on three-year subsets. That technique always results in the loss of one data point at each end of the graph, but GMA seems unaware of that and has levelled out the graph at each end. This is mathematically inappropriate and reduces the visual impact of the record peak in the early 1980s.
- In 2018, the harvest report had an error on p11 (Table 6) where there were two rows of data for Pink-eared duck; was one correct and the other erroneous, or should the two be added together?
- In 2015, a particularly dry year, the GMA revised the harvest figure upwards by 40% between the first week of December (when provided to stakeholders) and Christmas (when provided to the Minister). A subsequent FOI request[13] provided no useful information about the source of this "error" or any future precautions to guard against a recurrence. The final harvest report was not released until a year after the end of the 2015 shooting season.

It's difficult for the public to place trust in the GMA's data. All reports of shooter participation and "harvest success" are provided by shooters themselves, who are well aware of the political impact of high or low numbers.

As noted above, key aspects are omitted from the GMA's *Considerations 2020*. However, the 52-page report does include some seemingly extraneous and misleading information and graphics. We are concerned that the inclusion of such information then appears to present duck shooting in a (falsely) favourable light, for example:

- "*There are 25,000 hunters licensed to hunt duck in Victoria"* (p.2). The reader must go to p45 to read that almost half of the licensed hunters (45%) are inactive (did not hunt ducks in 2019).
- "*Duck hunting is regulated to ensure it remains safe, sustainable, humane and equitable*" (p.2). The comments from the eye-witness (Fig. 15 of this submission) and a long history of rescuer observations and formal complaints to GMA about hunter behaviour demonstrate that it is neither safe, humane nor equitable. The graphs provided in this submission show that it is not compatible with sustainability of game species.
- There is a major heading on p16: "*Habitat availability*". But the water storages across Australia and Victoria (pp.17-18) are largely irrelevant, as they accumulate water over long periods of time, depend on factors such as human population pressure, and are unsuitable as habitat for game ducks. The storages in the Murray-Darling Basin (pp.19-20) are more relevant; Australians are sadly familiar with the scenes of dead fish as water quality and quantity deteriorates in that system, and this is normally a critical area for waterbird breeding and feeding. Storages in the northern basin are now lower than during the Millennium drought, with no likely improvement over summer.
- Soil moisture, runoff and streamflow predictions are all poor, but at p.27 the GMA highlights a rare area of high pasture growth, despite a map dominated by red, orange, yellow areas – indicating low pasture growth.
- From p.28, *Considerations 2020* covers the 2019 EAWS. The new approach (2018 and 2019) of EAWS reporting provides a misleading visual impression that there are waterbirds and wetlands everywhere along the survey bands, because the maps are covered with dots of

[13] The former Department of Economic Development, Jobs, Transport and Resources, FOI Ref: 17-813

various sizes. However, the smallest wetland dot can represent a large 'puddle' of only 10 square metres (0.001 ha) and the smallest waterbird dot may represent only one bird.

- The statement: "*Waterbirds were most abundant in bands 2, 9 and 10*" appears no less than three times (p.32; twice on p.33) - without the qualifier that 2019 levels in the Victorian Bands are about half those of 2018 (and 2018 was a poor year). Note these weren't necessarily game ducks, but all waterbird species combined, so of questionable relevance for duck shooting.
- At p36, the years of peak populations are referred to as "outliers" – which we consider to be quite inappropriate when studying species that are known to follow a boom-and-bust pattern according to rainfall and habitat. It is significant that the last seven years of game duck abundance have been at or below the median – a highly unlikely situation if the pattern is random.
- It is noteworthy that both the long-term average (just over 200,000) and the median (around 150,000) of surveyed game birds have been calculated from painstaking counts across weeks of aerial surveys. But these aerial counts are considerably less than the 238,666 game ducks (self-reported to have been) shot for recreation in the 2019 season in Victoria. In our view this provides no confidence at all in the sustainability of species; the hunting and killing of this large number of native ducks each year puts these species at great risk.
- At p.43, we see the usual labels from GMA's *Considerations* documents: "*Where the ducks are"* and "*Where the habitat is*". But this bar graph for "ducks" is actually the bar graph for all waterbird species combined (see pp.33-34). We raised this error with GMA and obtained (by personal communication) the data for game ducks.

It must be emphasised that in Victoria the game duck abundance is about half that for total waterbirds, and the total waterbird abundance is itself about half what it was last year. The reality is that Victoria has very little in the way of game ducks or habitat this year. The 2019 "average days hunted" and "seasonal harvest per licence holder" on p46 are the lowest for a decade (at least) due to the poor season, and the situation has deteriorated since then.

4. Economic and social contributions of hunting

Since 2014, hunting and shooting organisations have touted the $439 million annual benefit alleged to flow to the Victorian economy from hunting-related activities following the publication of the study commissioned by the Victorian Department of Environment and Primary Industries (DEPI) entitled "Estimating the economic impact of hunting in Victoria in 2013."

Importantly, this reported economic benefit did not consider what impact a ban on hunting and shooting would have on the recreational behavior and spending patterns of participants.

In 2019, a new report was commissioned by the Commonwealth Department of Health (DOH) entitled "Economic and Social Impacts of Recreational Hunting and Shooting." The report was prepared by RMCG (the same consultancy who prepared the 2014 report commissioned by the DEPI) and was based on a survey of 16,576 hunters and shooters from all States and Territories.

This survey did attempt to explore how recreational time and spending would be impacted in the theoretical situation where hunting and sports shooting were both banned. The results paint a very different picture to the 2014 DEPI report. From p4 of the 2019 DOH report:

> "*The gross contribution to GDP, or the economic footprint, from recreational hunting and sport shooting activity in Australia in 2018 was estimated to be $2.4 billion, comprising $0.8 billion directly and $1.6 billion as a result of flow-on economic activity.*
>
> *The gross contribution does not tell us the benefits of hunting and shooting for the Australian economy, or conversely, the impact on the economy of the (hypothetical) situation where hunting and shooting were prohibited. If hunting and shooting were prohibited, hunters and shooters would redirect their expenditure to other goods and services, and in many cases to similar outdoor activities such as camping, fishing, four-wheel driving and so on. The 'net' contribution to the economy, taking into account the substitution of expenditure to other activities is estimated to be $335m, or 0.02 per cent of Australia's GDP*."

It is important to note that these are national figures, covering both hunting and sports shooting – in other words, their combined incremental contribution to the national economy is only $335 million, of which Victoria's share is a fraction of that, of which duck hunting's share will be a smaller fraction again (noting that the 2014 DEPI report suggested (p25) that expenditure on duck hunting trips contributed less than 20% of the total expenditure on hunting trips in Victoria).

The findings of the 2019 report also address the supposed health and social benefits attributable to hunting and sports shooting – finding that the vast majority of hunters would still continue to be active, enjoying outdoor activities such as hiking, camping and four-wheel driving even if hunting were banned.

5. Environmental concerns reinforced by the findings of the 2017 Pegasus Report

When, as now, there is irrefutable evidence that our landscape and its wildlife are in serious trouble, it's likely shooters may push for a 'restricted' season rather than a cancellation[14]. We argue strongly against allowing a 'restricted' season to occur in 2020.

A decision to review duck shooting policy in light of Labor's recognition of animals as sentient beings was overwhelmingly supported at Labor's State Conference last month. This is a further indicator and mirrors the strong shift in community opinion as people see the devastating impacts of drought, fire and climate change on landscape and wildlife. Duck shooting at the end of the 2020 summer would be seen as environmentally irresponsible (and cruel) by the majority of the community.

The following graphs are produced from published GMA statistics and show that in fact recreational duck shooting is a dying activity:

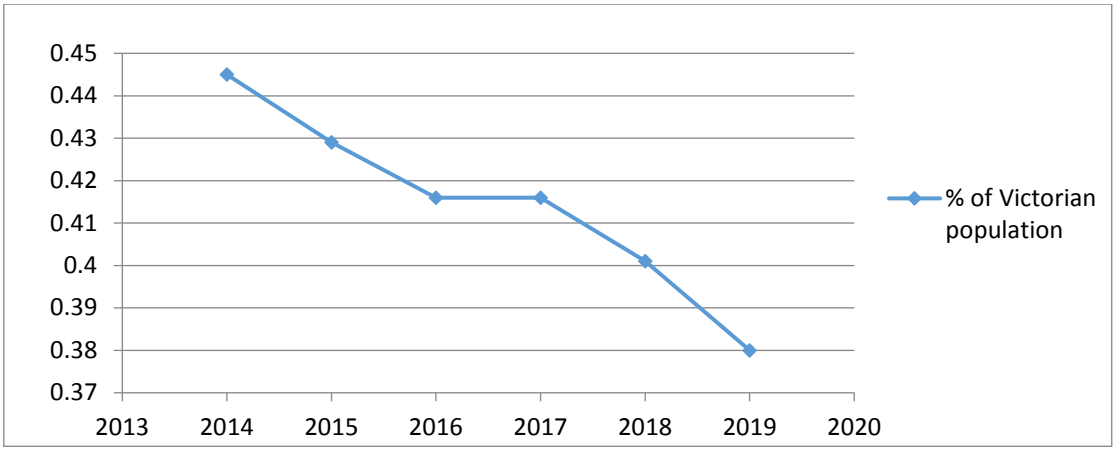

Figure 18. Licensed duck shooters as a percentage of the Victorian population.

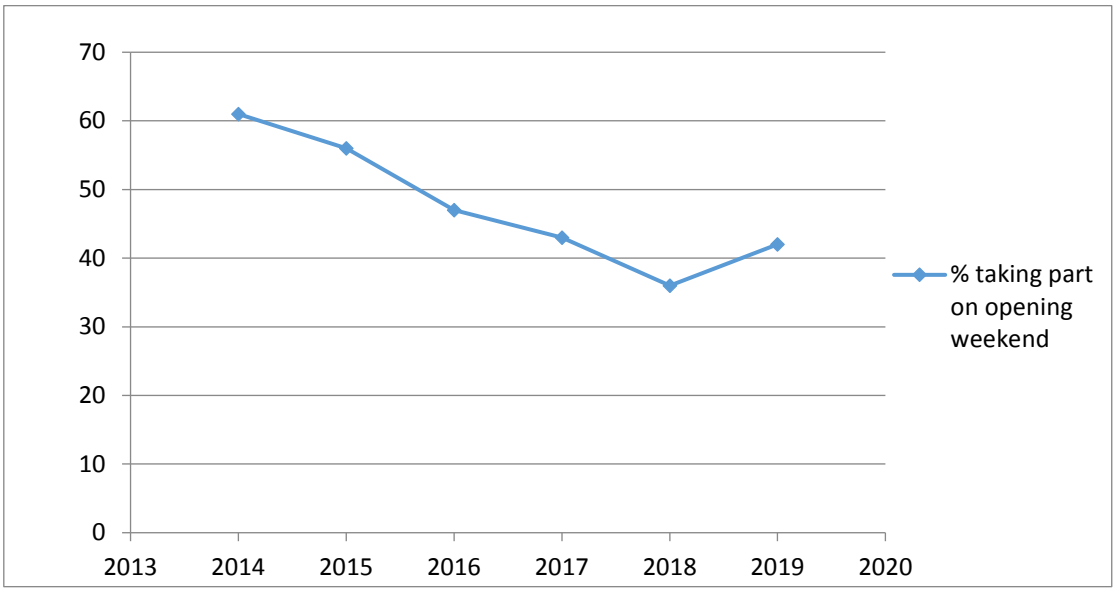

Figure 19. Percentage of licensed duck shooters active on opening weekend.

[14] In December 2017 a submission to GMA from hunting lobby group Field & Game Australia argued for five years of full seasons for all eight game bird species "to allow for the collection of standardised data". Although FGA tags itself as "the surprising conservationists", such a proposal would have led to an environmental disaster given the prevailing conditions.

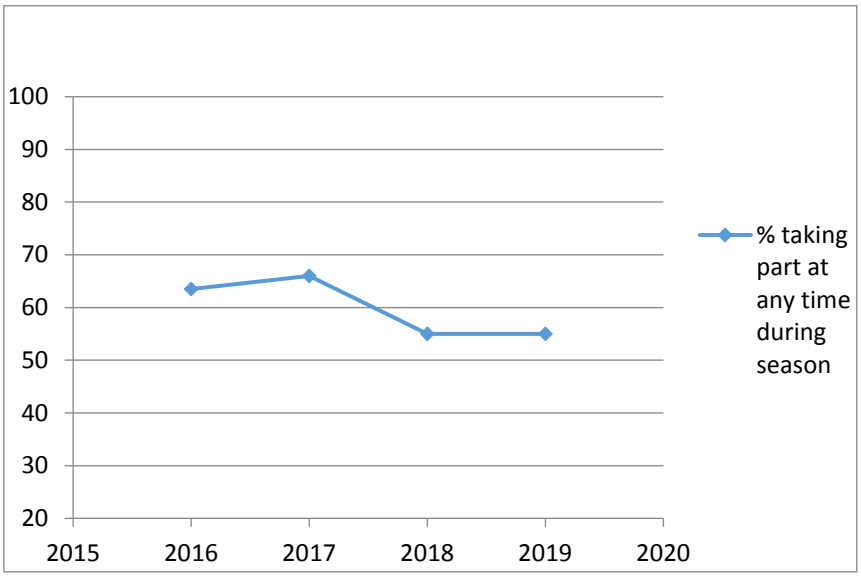

Figure 20. Percentage of "active" duck shooters - those who took part at any time during the season.

State Premiers from both political 'sides' (Kennett 1995; Bracks in 2003; 2007, 2008) have taken the decision to cancel duck shooting seasons in very dry periods. Some may try to compare the current situation with those years, but apart from the difficulty of comparing droughts (no two are alike) we have a clearer, more powerful new force at work today with climate change. It is more than a decade since a season was cancelled, and the trend of warmer temperatures and overall decrease in rainfall continues to bite in ways that were unfamiliar even a decade ago.

A key problem with a 'restricted' season is that bag limits cannot be enforced. It is impossible to have officials watching over shooters 24/7 at all the myriad locations around the state where they may find a waterway and some birds to shoot, including private property. Again, the real-life account (Fig. 15) illustrates how impractical this is.

In addition to game birds that would be shot without supervision, there is a largely unaddressed problem of illegal shooting of protected species. The Pegasus Report (pp.26-27) raises concerns that remain unresolved:

- With the exception of the once-in-a-lifetime Waterfowl Identification Test (WIT), "*applicants currently seeking a licence to hunt [ducks] are not required to prove any knowledge of the law, demonstrate even a basic understanding of safe and responsible hunting practices or possess any hunting competence… GMA is providing education and awareness programs to hunters only after they have acquired a licence to hunt, which does not provide any strong incentive for hunters to participate… The current arrangements are analogous to VicRoads providing driver education only after a licence has been allocated to drive on a public highway.*"
- "*Current licensing arrangements are ineffective in ensuring a minimum acceptable level of awareness and competence amongst hunters, and leaves the GMA exposed to criticism that it is not fulfilling its statutory obligations to promote the sustainability and responsibility of game hunting in Victoria.*"
- "*…the 2015 report from the Arthur Rylah Institute indicated that a much larger sample of shoreline surveys is required… for monitoring compliance with the game hunting laws and animal welfare issues.*" (p.29). Such surveys look for dead and wounded birds (game or protected species) that have been abandoned by shooters.
- "*The GMA has broad responsibilities to the Victorian community and cannot rely on hunting organisations to provide information to non-members and unlicensed hunters…*" (p.35).
- "*The GMA is not effectively delivering its compliance and enforcement responsibilities.*" (p.43)
- "*The GMA's current position exposes the Minister and the Board to considerable policy and regulatory risk and if not addressed will contribute to continued non-compliance with the game hunting laws and the erosion of the hunting community's social licence.*" (Executive Summary)

Polling results (Roy Morgan poll in 2007 during the Millennium drought) show that the community is overwhelmingly against duck shooting, so any 'social licence' that may have existed is no longer present.

Although the WIT now has a slightly higher pass-mark of 85% (one wrong bird in every seven), the thousands of duck shooters who qualified previously under a lower WIT pass mark, are still allowed to shoot. Driving licence tests are known to deliver an 'instant fail' for important errors and this must be the standard for 'shooting' the wrong bird in the WIT. It can be a jailable offence to shoot the wrong bird in the field.

Animals Australia is extremely disappointed in the failure of GMA to progress the criticisms of the Pegasus report (from 2017) relating to the lack of effective education, awareness and competence training of licensed shooters, and thus its failure to fulfil 'its statutory obligations to promote the sustainability and responsibility of game hunting in Victoria'.

In 2014, when the GMA legislation was going through the state's parliament, a duck-shooting MP (Mr Katos) spoke as follows about the responsibilities of the new agency, especially in times of severe drought (emphasis added)[15]:

> *"It is important that members of the authority are at arm's length from the hunters themselves. You do not want to have a conflict of interest on the board. Obviously, hunters will always want longer seasons and larger bag limits. In certain climatic conditions those things simply may not be possible. For example, if there is an extreme drought, duck numbers will be lower and you would have to have lower bag limits, and at times you would not have a season. Those are the sorts of things that the Game Management Authority will look at."*

We now have a dire climatic situation, including the outlook for the coming months, and knowledge of extremely low waterbird and breeding numbers, and so the 2020 season must be cancelled.

6. Conclusion

Considerations 2020 acknowledged (on the last page) that:

> "*Given the absence of habitat in central eastern Australia, there is limited opportunity for large-scale movement between north and south*."

On p50, *Considerations 2020* acknowledges that existing waterbird populations constitute core breeding stock. It also states that "game duck abundance increased slightly from last year" - but that increase was not in Victoria, where waterbird abundance fell by 40 % (.p34). With widespread drought - and now fires - acting as a barrier to movement southwards, any modest increase up north (from a low base) is irrelevant for the Victorian shooting season. Sustainability principles demand that the remnant game ducks sheltering in Victoria should not be shot.

Environmental conditions in the eastern states have entered unprecedented times. Victoria is yet to experience the full blast of summer heat and fires. For a regulator mandated to "*promote sustainability and responsibility in game hunting in Victoria*" there can be nothing responsible or sustainable in sanctioning recreational killing of native ducks in 2020 – even for a 'restricted' season.

The 2020 duck shooting season must be cancelled, on the current compelling environmental grounds.

[15] Hansard Victoria, Legislative Assembly, 11.3.14, page 592

Please contact me if further clarification is required.

Yours sincerely,

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