FGA Comments on the 2023 Duck season considerations.

Introduction.

In 2023 GMA have again sought "written comments from key stakeholders" regarding season setting for the upcoming 2023 Victorian Duck Season.
This is despite the fact that more than a year ago – prior to the setting of the 2022 season stakeholders were told we could expect an interim harvest model that was transparent, science based and that would remove the subjectivity and politics from the process, and ensure *bag limit and season length determinations are made solely based on the sustainability of Victoria's duck populations* of setting duck season every year.
This has not been delivered.

FGA have concerns that the regulators may have lost sight of the fact a full legislated season should occur in all instances, unless there is a clearly defined and identified reason to modify that season.
Until a review and update of the current legislation occurs – The Wildlife (game) Regulations 2012 still maintains that the Victorian duck season should:
Commence from the beginning of the third Saturday in March in each year until 30 minutes after sunset on the second Monday in June in each year.
And should allow the daily harvest of:
A maximum of ten ducks.

This season arrangement can be reviewed, and modifications may be implemented by the ministers "in exceptional circumstances".
The interim harvest model was touted as a way to "inform" the decision of if a change was necessary – and what that change might be, however it seems to have completely dislodged the premise that a full legislated season exists.
Instead of having a full legislated season unless there are exceptional circumstances, we are now in the position where an interim model is being used to "inform" a board, that will then make "recommendations" to a department, that will then "advise" three different ministerial positions – who will then set a season, with no reference back to the legislated season length or Bag limit.

There seems to be a desire to trend back towards the previous fundamentally flawed and subjective decision making process.
Lack of transparency is continuing to erode trust and confidence that hunters hold in the Game Management Authority as competent regulators.
There is a high risk of further disengagement of the hunting community and hunting organisations with this process.

Field & Game Australia (FGA) maintain support for the stated objectives of a move to an

Adaptive harvest model (AHM), and while we have concerns over the current interim harvest model (IHM), we will continue to be involved wherever possible in the development of a true adaptive harvest model.

FGA is satisfied that Adaptive Harvest Modelling is the world best practice to maintain the sustainability of well-regulated and ethical hunting activities, and should be the focus moving forward.

Any new model should therefore be clear that in the first instance the outcome is always a full legislated season, unless downward modifications are required for scientific (not emotive or ideological) reasons.

FGA are supplying these comments to represent members and outline what we believe should be the key considerations leading into the setting of a 2023 Victorian duck season. We retain the position that the previous season setting process has been fundamentally flawed, and is over reliant on poor science inputs primarily from the EAWS, the IHM that also relies heavily on these inputs falls into the same category.

Comments on "Considerations for the 2023 Duck season (20 Dec 2022)".

Rainfall:
Rainfall in 2022 has been significant and widespread. Duck Populations respond rapidly to this with dispersion and breeding. Eastern Australia is a significantly better habitat for breeding waterfowl in 2022 than it was in the previous 2 years. Expectation would be that this is reflected in actual population figures. This should therefore lead to an increase in the permissible harvest over the previous year. Exceptional conditions produce exceptional dispersion as evidenced in the EAWS 2016 and 2010. Naturally game bird abundance across EAWS bands are reduced via this dispersion

Rainfall stats stated in considerations document:
"Second wettest spring since 2010 – 10th wettest since records began – any rainfall deficiencies for yearly averages are cleared" -
"Multi-year rainfall deficiencies which originated during the 2017-2019 drought have been almost entirely removed from the eastern states…"

Catchment levels:
Many catchment areas in Eastern Australia are full – with many additional areas flooded for the first time in a decade. As well as this – spring and early summer rainfalls have continued to maintain high water levels and flood outlying areas meaning water is not just confined to catchments (a key driver for waterfowl breeding).
The Murray Darling Basin in particular – recognised as a critical area for waterfowl production - is not only full but storage volumes are at 103%!
This creates ideal conditions for Waterbirds to breed and produce multiple successful clutches of young in a single year. Current modelling does not seem to allow for "compound breeding events" and their significant increase in the corresponding populations come March the following year.

Catchment and soil moisture stats stated in considerations document:
"Water storages in Vic and MDB mostly at or above full capacity"
"soil moisture as at December showed an improvement over much of eastern Australia from 2021 to 2022, At 10 December 2022, root zone soil moisture was above average for most of Australia, except for parts of Western Australia, reflecting very much above average spring rainfall."
"Runoff impacts the availability of water in the wetlands and the health of riverine systems. It has a direct influence in the creation and maintenance of waterbird habitat. Year-to-date runoff for much of eastern Australia and parts of South Australia has ranged from above average to very much above average."
"In 2022, Australia's water storages increased by 14.5% from the same time last year, from 72.1% to 86.6%".
"The total (Melbourne and Regional) Victorian water storage levels are currently at 96.8% compared to 85.4% last year.
Storage levels have increased by 11.4% from this time last year."

Eastern Australian Waterbird Survey (EAWS):
While EAWS covers the whole of Eastern Australia (averaging out many results) – of note in 2023 is that Band 3, and 5 of the EAWS (Northern Vic/Southern NSW) contained most of the waterbird activity – and over 65% of the total waterbird numbers counted. This should be a factor when setting a Victorian season. Waterbird numbers in Qld should have less impact than Southern NSW and Vic. The averaging of EAWS data across all of Eastern Australia, as well as the other well documented deficiencies of using EAWS data in season setting is the reason FGA would like to see the complete phasing out of EAWS data from season setting process'.
For example: A count of only 38 Chestnut teal is at the complete opposite of ground observations and confirms inability of this survey to correctly identify and determine abundance of game species, additionally the EAWS produces zero abundance of Pink Ear below band 4, yet on the ground observation indicates healthy abundance. On the positive side of the scale the EAWS correctly identifies the dispersion across nearly all bands of the survey of the Grey Teal; the game species that most rapidly multiplies in boom cycles.
It is stated in the notes of the EAWS itself that the abundance index must be considered in context with the distribution of birds, habitat availability and distribution, climatic forecasts, concentrations of birds.
Increased habitat availability, distribution and widespread breeding all have downward pressure on counted birds – despite the fact they all have net increases on actual population. Historical data also confirms this – EAWS' indices are simply not accurate as an abundance estimate during boom cycles and when waterfowl are widely dispersed.

EAWS Data of note in 2022:
"The wetland area index is above the long-term average."
"The majority of the available habitat occurs from northern Victoria to northern NSW (bands 2-5).
Pasture condition is a coarse indicator of potential feeding habitat for grazing species, such as Wood Duck and Mountain Duck, and nesting habitat for ground-nesting game ducks*.
*(Blue Wing Shoveler)

Over the last 12 months, pasture growth throughout much of eastern Australia has increased

substantially from 2021.
Pasture growth in almost all of eastern Australia was average to extremely high, with most 2021 deficiencies removed.

The index of waterbird abundance (187,175) **increased by 96% from 2021** (95,318)

The EAWS breeding index (all species combined) increased an order of magnitude from the previous year and was well above the long-term average and the second highest recorded.

More accurate population data and considerations for Breeding:
FGA are very interested to see what the Victorian Game duck abundance estimates/helicopter surveys show. A key flaw in current abundance estimates is that when there is a lot of available habitats across all Eastern Australia – birds spread out and become harder to count. A satisfactory model for multiplying actual counted numbers when birds are widely dispersed is yet to be developed – counting individuals and multiplying by water surface area seems to not be accurate given that all indications are that birds are multiplying extremely successfully – but populations are shown as trending down!
There is also a Waterbird breeding index in the EAWS. In 2022 this index was the second highest on record – this will clearly influence population in 2023 – but seems to be overlooked in the IHM.
Indications are the helicopter counts are complete – why does modelling/release of this data take so long?

Concerning the Interim Adaptive Harvest Model:
FGA has grave concerns that the interim harvest model adopted is focused too heavily on Harvest Reduction, not maintaining sustainable harvest levels backed by existing science. There are also concerns that inputs are being changed or selected based on what inputs will give the lowest possible outcomes – not impartial or un-subjective data processing.
We have concerns over the implications from this for a permanent Adaptive Harvest model.

An independent review of the settings used in the interim Harvest Model (Analysis of settings used in Interim Model used to inform hunting arrangements for 2023 Prepared by: Paul Brown – Principal consultant/ecologist), used to inform hunting arrangements for 2023 has found that making small alterations to just two apparently arbitrary settings deliver significantly different harvest results - with no apparent detriment to the scientific sustainability of the model.
The IHM does not contain any indices for breeding, it's a predictive model so given it's nature it should also include an Aps score for breeding.

The IHM seems to be overtly influenced this year by NSW data, the NSW water abundance for the Murray Darling Basin (MDB) is excluded from some calculations in the IHM this year, instead the Lake Eyre Basin (LEB) score is used (which was lower – but still has flood water transiting to it). As per above the MDB is in flood and water surface area is at levels not seen since the 70's. How could this have been overlooked or not included? The NSW DPI helicopter data count this year was also flawed (as indicated in the GMA recommendation) and it should have been corrected in the IHM.

While FGA are aware of the extensive knowledge of the scientists who developed the IHM (Klassen and Kingsford) - FGA are of the view for the modelling from both the interim and permanent model to be credible that it should be independently peer reviewed by one or more appropriate adaptive harvest modelling experts.

Peer review could consider factors such as:

- assumptions or "arbitrary" settings within the model.
- three-year lag times or averaging of water data – does it really take 3 years for duck populations to recover from drought? Conversely – should bags be restricted faster after only one dry year?
- the model switching water basins it is utilising for water surface measure namely NSW not even using MDB surface area this year though it did the previous year.

Agricultural impacts:
In past years there were species specific increases for taking specific species that will otherwise cause damage to agriculture and infrastructure.
FGA would advocate for the same to be implemented in 2023.
Specifically – Given the noted exceptional conditions for grazing ducks in 2023 - Consideration should be given to allowing recreational hunters to take an increased take of Wood ducks that will otherwise need to be controlled by farmers anyway – thus increasing utilisation of our wild game resource.

Economic impacts and Hunter Participation:
Hunter engagement in this model is exceptionally low.
The Game Management Authority needs to be completely clear on communicating direct to hunters on why their modelling is recommending a 60% decrease in the legislated bag limit when seasonal conditions have been so good for ducks in 2022.

FGA would encourage the Game Management Authority to also consider the barriers they are placing before hunters – and the effect on the Victorian Community.

In his independent review – Paul Brown states:
Victorian duck hunters' attitudes to highly restrictive regulations imposed when required for resource sustainability reasons have not been surveyed. North American studies of the effects on duck hunter-behaviour of imposing highly restrictive regulations such as low bag-limits, show that compliance rates reduce (Martin and Carney 1977), and participation-rates drop (Haugen et al. 2015). Reduced compliance and participation are undesirable for both the resource-management and hunter-advocacy stakeholders.

Victorian data exists that clearly correlates a decrease in hunter participation, and significantly – a decrease in hunter travel/spending in regional communities in years where low bag numbers are set.
Hunters cannot reasonably be expected to travel for hours and stay in regional communities (where their spending has significant impact) to harvest 4 birds.
Hunters will still hunt – but they will do so closer to home, and more sporadically across the season. Victorian towns like Donald and Boort – that historically saw massive influxes of hunters on opening weekends, simply miss out on the hunter spending.

Conversely – Hunters in northern Vic will cross the border and hunt ducks in NSW (under pest mitigation quota's) where restrictive bag limits do not apply – and spend their money in NSW.

There has previously been a push from some "stakeholders" to discount these economic factors, and claim spending is either over-stated or insignificant.
Rural towns and business' that are struggling to survive would likely disagree.
If hunters cant hunt – the spending will go elsewhere – and will not still be spent in those communities.

Other seasonal considerations:
FGA would like to see due consideration given to the data used for modelling, and possible late season adjustment.
The current modelling utilised average water figures over a period ending 31/10/2022.
Victoria has seen sustained wet conditions in November and December of 2022, and exceptional conditions for ducks – FGA have had numerous reports from members of continuous breeding events since august 2022.
In years where water peaked in October and then receded the seasonal conditions would not have seen this level of breeding – and a much smaller population of young birds would be around in March of 2023.
We have seen this historically in years such as 2010/2011 and again in 2016/2017.
The model seems to be deficient in allowing for these boom conditions. While appreciating the constraints of aiming to have the season announced in December, there should be consideration given to ensuring ministers are aware of the additional water/breeding conditions – and adjustments made to increase the daily bag if it has been unduly restricted.

Commitments were made under the Sustainable Hunting Action Plan to ensure timely season announcements – This has not been delivered, and we seem to still be discussing a season announcement not likely to be delivered prior to February 2023!

FGA Comments on overall season setting parameters and future direction:

FGA and its members are concerned that despite near perfect waterbird breeding and habitat conditions in 2022 – the indications are that the GMA will again propose heavily reduced bag limits in 2023 - despite the climatic improvements. This causes severe concern around the current and future models being built to unnecessarily restrict seasons when a full legislated season would otherwise have been declared.

Closing points/Conclusion
Key areas of concern/comment on the GMA's 2023 Duck season considerations:

- IHM and GMA are too focused on reducing harvest
- Heavily reduced Bag limit recommendation in a year of exceptional duck breeding seems counter-intuitive
- Lack of apparent transparency in why the IHM would give the same season recommendations (bag limit) in 2023 as was given in 2022 given the improved climate.

- Ongoing concerns on not fit for purpose data being used to underpin the IHM model (EAWS)
- Victorian helicopter data (ARI) counts still not included in any modelling
- Failure to deliver on key timeliness goals around season modification announcements
- Lack of confidence that a full legislated season could be achieved under current IHM
- Concern over impartiality in development of an ongoing adaptive harvest model
- Failure to deliver on key timeliness goals around season modification announcements
- Harvest data from 2022; estimates of hunters participating, actual licence holder numbers and most importantly the estimate of hunter days at 8.5, twice the long term average in a season where fuel prices and reduced bag limit heavily influenced hunter behaviour, is erroneous. We would like to see how that estimate was reached and evidence of influencing factors.

Field & Game Australia are genuinely invested in the sustainable management of our natural resources – especially in our native waterbirds. No "stakeholder" is more invested in ensuring the long-term sustainability of native ducks than hunters.
FGA have genuine concerns about a Game management model that is more about limiting hunters than about maintaining the sustainable use of a natural and renewable resource.
Field & Game welcome the introduction of a robust Adaptive Harvest Model – but as before is continuing to insist this model must be science based and must remove the political and subjective inputs to season setting. This includes inputs within the model itself!
Good regulations encourages participation and compliance!

The biggest challenge continuing to face native waterbirds is habitat degradation and feral predation. Existing science supports that hunting has little to no gross effect on the sustainability of duck populations, but hunters do have a positive impact on ensuring habitat availability and reducing predation. Despite what some would believe, duck hunters are not the enemy of ducks!

FGA believes that with seasonal conditions in Victoria right now as good as they are – there should be no requirement to modify the 2023 season length or bag, and we look forward to a timely announcement of any modifications intended to be made to the legislated duck season in 2023.