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NSW Environment Protection Authority
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By email: climatechange.review@epa.nsw.gov.au

Dear Chair and Committee

NSW Environmental Protection Agency's draft Climate Change Policy & Action Plan

Climate change is increasingly an animal health and welfare issue. Animals hold no responsibility for the causes of climate change, yet they feel the consequences most strongly. Approximately 3 billion animals were killed or displaced by the 2019-20 bushfires, hundreds of thousands more killed by floods, and domestic pets suffer from heat stress each summer. Veterinary professionals and animal carers are on the frontline experiencing the impacts first hand.

[Vets for Climate Action \(VfCA\)](https://www.vfca.org.au) is a not-for-profit, registered charity which represents over 2000 members of the veterinary profession and animal care community around Australia, including over 300 in NSW. Our role is educating, collaborating, and advocating for climate action within the veterinary community, broader animal care

network, and government. Thirty three former Chief Veterinary Officers and Senior Government Veterinarians (**the former CVO Group**) work alongside us and our Patron is Professor Peter Doherty; a veterinary surgeon, Nobel Laureate and former Australian of the Year. Our Board consists of six Directors, including Professor Mark Howden, Nobel Laureate and a current Vice Chair of the Intergovernmental Panel on Climate Change (**IPCC**).

VfCA supports the NSW Environmental Protection Agency's *Climate Change Policy (Policy)* and *Climate Change Action Plan 2022-25 (Action Plan)* and applauds these steps to protect our people and animals. However, we provide additional comments below that the EPA could consider adopting so the Policy and Action Plan are both ambitious and impactful, and ensure a world where animals and people thrive in a healthy environment.

VfCA and the former CVO group would be pleased to provide the EPA with independent advice at any time on specific elements of the Policy and Action Plan, particularly where it relates to animal health and welfare.

Key Issues for considerations

VfCA is pleased the NSW Environmental Protection Agency (**EPA**) recognises its statutory obligation to protect the community and environment from harm, including that caused by climate change. We recognise the release of the draft *EPA Climate Change Policy* and *Climate Change Action Plan 2022-25* as an important and timely step in this critical decade for action on climate change, and a significant shift within the EPA confirming its duty in relation to climate change.

Targets

One of the Policy's key objectives is:

- to reduce greenhouse gas emissions in line with NSW Government's **net zero targets** which are
 - a 50% reduction in emissions by 2030, compared to 2005 levels
 - net zero emissions by 2050¹

VfCA celebrates the NSW Government's commitment and that its net zero targets are stronger even than those legislated by the Federal Government in the recent *Climate Change Act 2022* (Cth) and the *Climate Change (Consequential Amendments) Act 2022* (Cth).

¹ p. 14 EPA [Climate Changes Policy: Draft for Consultation](#) accessed 24 October 2022

The importance of reducing carbon emissions to zero cannot be overstated. In scenarios assessed by the IPCC in its *Sixth Assessment Report of the Intergovernmental Panel on Climate Change (6th Assessment Report)* limiting warming to around 1.5°C requires global greenhouse gas emissions to peak before 2025 at the latest, and be reduced by 43% by 2030; at the same time, methane would also need to be reduced by about a third.²

Even if we are to limit global greenhouse gas emissions, it is almost inevitable that we will temporarily exceed 1.5°C and the consequences will be stark: heatwaves, droughts, bushfires and intense rain events will become even more severe. Sea levels will rise, species will become extinct and crop yields and livestock production will fall. This will cause further food and water insecurity, economic disruption, conflict, and terrorism³.

VfCA asks that the NSW Government, and the EPA, approach these targets as “a floor, not a ceiling” on emission reductions as the Federal Government⁴ has stated it will. In fact, there are cogent arguments that Australia should aim to reduce emissions by 75% below 2005 levels by 2030 and reach net zero emissions by 2035.⁵ This would protect Australia from the worsening effects of climate change including irreversible changes.⁶

There is no safe level of global warming.

Urgency and the timeframe for action

The Action Plan intends actions to be staged over 3 years: 2022 - 2025, with a review of the Policy and Action Plan due for review in 2025 or earlier “if required”.⁷

Additionally, with a heavy emphasis throughout the Action Plan on consultation, information, guidance, support, encouragement, assistance, and listening, VfCA fears there is not enough focus on direct regulation or enforcement through existing powers

² IPCC, 2022: [Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change](#) [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001, accessed 24 October 2022

³ United Nations, [The Climate Crisis – A Race We Can Win](#), 2020, accessed 24 October 2022

⁴ Ellen Ransley, [Chris Bowen: ‘bit to go yet’ on climate bill as government prepares to introduce bill](#), The Australian, 27 July 2022, accessed 24 October 2022

⁵ Will Steffen, Lesley Hughes, Simon Bradshaw, Dinah Arndt and Martin Rice, [Aim High, Go Fast: Why emissions need to plummet this decade](#), The Climate Council, 2021, accessed 24 October 2022

⁶ Steffen, Hughes et al, *Ibid*

⁷ p. 7, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

and tools to regulate climate pollution and support the NSW Government's net zero targets.⁸ These tools include, but are not limited to, issuing environment protection licences (**EPLs**) or developing economic measures such as putting a price on greenhouse gas emissions. We note the Action Plan foreshadows stronger regulatory responses and market-based approaches (such as charging a fee for greenhouse gas emissions) may only be applied in the "medium to longer term if it is required"⁹.

As a result, VfCA believes the Policy and Action Plan do not reflect the urgency of the situation. This timeline means the regulatory power of the EPA may not be put to use until at least half way through this decade, which is already considered at least a decade too late.¹⁰

In a 2011 report, the then Climate Commission identified 2010 - 2020¹¹ as the critical decade for action to minimise climate change risks. However, the decade to 2020 was marked in Australia by inaction and climate wars. This was symptomatic of a global malaise. As a result, this decade has begun with accelerating emissions and record temperatures. In May 2022 the highest atmospheric carbon dioxide (CO₂) concentrations in the history of humankind were recorded: 421 parts per million. This is 50% higher than pre-industrial levels.¹² And, the last eight years have been the hottest on record with decadal global temperatures at 1.1°C above the average from the start of the industrial revolution.¹³ In fact, the CSIRO states that Australia's climate has warmed on average by 1.44°C since national records began in 1910¹⁴.

The painful truth is that the latest data indicates that the world is on track for a temperature rise of between 2.4°C and 2.6°C or more by the end of this century and there is "no credible pathway to 1.5°C in place" today.¹⁵

⁸ Environmental Defenders Office, [Empowering the NSW EPA to Prevent Climate Pollution](#), 2020, accessed 25 October 2022

⁹ p. 50, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

¹⁰ Steffen, Hughes et al, *Ibid*

¹¹ W. Steffen & L. Hughes, [The Critical Decade: New South Wales climate impacts and opportunities](#), The Climate Commission (Department of Climate Change and Energy Efficiency), 2011, accessed 24 October 2022

¹² US National Oceanic and Atmospheric Administration, [Carbon dioxide now more than 50% higher than pre-industrial levels](#), 3 June 2022, accessed 24 October 2022

¹³ Josh Davis, [The last eight years have been the hottest on record](#), Natural History Museum, 14 January 2022, accessed 25 October 2022

¹⁴ CSIRO & Bureau of Meteorology, [State of the Climate](#), 2020, accessed 24 October 2022

¹⁵ *Climate Change: No 'credible pathway' to 1.5C, UNEP warns*, [UN News](#), 27 October 2022, access 28 October 2022

VfCA asks that the EPA strengthen the timeframes for action and encourage the use of the EPA's full range of powers prior to 2025 to ensure the NSW Government's net zero targets are achieved as planned.

Climate change is not a future problem. It is with us and there is no time to delay.

Three Key Pillar Framework

The EPA is relying on three key pillars to deliver on their Policy and Action Plan:

1. Inform and Plan
2. Mitigate
3. Adapt

We consider each of these framework approaches below.

1. Inform and Plan

In large, VfCA supports this approach and particularly recognises the importance of the following actions proposed by the EPA:

- Continuing Action 2: Engage and collaborate with climate change experts across the NSW Government and with other jurisdictions.

VfCA also recommends that the EPA look to consulting with external, independent climate experts to ensure the full wealth of information and expertise is utilised.

- New Action 2(c): Partnering with the Department of Planning and Environment (DPE) to ensure climate change is adequately addressed by proponents of activities it will regulate.

VfCA believes that it is imperative that the *Environmental Planning & Assessment Act 1979 (NSW)* is amended to include explicit reference to climate change¹⁶, and that climate is a mandatory consideration in all planning assessments, approvals and decisions. We also consider that Climate Impact Statements must be required for major projects to assist decision-makers assess whether the project will have unacceptable impacts on the climate and our wildlife, and that are contrary to the NSW Government's Net Zero goals.

¹⁶ It is disappointing that the *Environmental Planning and Assessment Amendment (Climate Change Response) Bill 2022* lapsed on 21 October 2022 and we hope that another bill will be considered as a matter of urgency.

- New Action 3: Listen and learn from Aboriginal people; create opportunities to meaningfully engage and receive feedback on its climate change response
- New Action 4: Regularly discuss our climate change approach with the EPA's Youth Advisory Council, to ensure the EPA is putting intergenerational equity into practice

2. *Mitigate*

VfCA supports taking action to reduce the rate of climate change and is pleased that the EPA recognises this requires 'taking action to limit or prevent greenhouse gas emissions and activities that remove these gases from the atmosphere.'¹⁷ It is imperative greenhouse gas emissions are urgently reduced to keep temperature increase at 1.5°C and prevent the catastrophic impacts on climate change to animals, humans and the environment, discussed further below. Thus, this is the most important pillar in the Action Plan.

Again, VfCA supports the continuing and proposed actions by the EPA. However we request that a number of these are strengthened to ensure that the EPA is able to effectively regulate greenhouse gas emissions. As the EPA recognises in its Action Plan, its environment protection licensees are the largest source of greenhouse gas emissions within its regulatory remit.¹⁸

- Continuing Action 5: Support the whole of government approach to streamlining project approvals in renewable energy zones.

VfCA strongly supports the investment and development of renewable energy zones (**REZs**), using renewable energies including wind and solar, and providing economic opportunities for the regional communities in which they will be located. This transition to renewables ought to occur with the utmost urgency.

Additionally these projects must follow ecologically sustainable standards to ensure REZs are located, designed and operated to ensure there are no adverse impacts on our native wildlife (and flora), and preferably enhance outcomes for them.

- Continuing Action 7: Ensure methane emissions from EPA-licensed onshore-gas operators are minimised; review existing leak detection and repair programs

¹⁷ p. 25, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

¹⁸ p. 25 *Ibid*

VfCA recommends that this action be extended to include methane from coal mines. We support all actions that require and enforce improved leak detection and repair. As recommended by the IPCC's 6th Assessment, all methane production needs to be reduced by at least a third by 2030.¹⁹

- New Action 7: Develop a series of greenhouse gas emission reduction targets and related pathways for key industry sectors the EPA licences, to help guide the EPA's regulatory effort

While we commend the EPA's approach to consult with the relevant industry sectors, we do not support targets that are based on what is "reasonable and feasible for the sector".²⁰

VfCA urges the EPA to ensure these emission reduction targets are science-based, ambitious and legally enforceable. Again, recognising the urgency with which action is required, we ask that these targets be set within the first year, not "over the next three years".²¹

- New Action 9: Progressively place greenhouse gas emission limits and other requirements on licences for key industry sectors.

As per New Action 7, VfCA urges the EPA to ensure that greenhouse gas limits are science-based, ambitious and legally enforceable (rather than "feasible"²²). Additionally, we recommend this action be extended to *all* licences and that this action occur within the first year, recognising that this is a critical decade for action on climate change. Delay will cost our animals and people much more than it will for licensees to comply with any requirements and targets.

3. Adapt

The EPA's Policy and Action Plan recognises that communities, businesses and the economy can, to some degree, adjust and adapt to the existing and anticipated effects of climate change. However most animals (companion, livestock and wildlife) cannot or will not be able to adapt in time, risking further extinctions and biodiversity loss. Australia has the unenviable record of the worst mammal extinction rate in the world. In NSW alone 1,043 species and 115 ecological communities are listed as threatened under the *Biodiversity Conservation Act 2016* (NSW) including 78 species declared

¹⁹ IPCC, 2022 *Ibid*

²⁰ p. 33, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

²¹ p.32, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

²² p. 36, [EPA Climate Change Action Plan: 2022-25](#), accessed 24 October 2022

extinct since European settlement.²³ The Bramble Cay melomys, a small rodent in the Torres Strait Islands, is the first mammal to become extinct due to climate change. It is thought that rising sea levels and storm surges resulted in the loss of the animal's habitat.

The NSW EPA's own *State of the Environment 2021 Report*²⁴ recognises the threat climate change is to a number of our unique species. It identifies the species most at risk from climate change include those with:

- a narrow range of physiological tolerances
- low genetic variability and long generation times
- specialised relationships with other species or narrow geographic ranges
- limited physical capacity to disperse or move to new habitats²⁵

While some species and ecosystems may adapt through a range of strategies, such as changing their behaviour, or moving to more suitable climates,²⁶ the increasing rate of climate change and pre-existing threats (like natural resource exploitation, land clearing and introduction of invasive species) may limit their success.

This is in large part why VfCA believes the Mitigation framework pillar (as discussed above) is the most important to ensure success. Despite playing no role in causing climate change, our animals have already suffered from its effects:

- In November 2018, when temperatures exceeded 42°C for two days in a row in an extreme Queensland heatwave, 23,000 spectacled flying foxes (nearly one third of the entire Australian population) were killed.²⁷
- The sex of a sea turtle is determined by the sand temperature in which the eggs incubate. When temperatures are below 29.1°C the turtle will be born male. But, with temperatures on the rise due to climate change, 99 out of a hundred turtles are being born female. This threatens the future of many turtle species including the Pacific green sea turtle which nests in northern Queensland.²⁸

²³ NSW EPA, [NSW State of the Environment: Threatened Species](#), accessed 29 October 2022

²⁴ NSW EPA, [NSW State of the Environment](#), accessed 29 October 2022

²⁵ NSW EPA, [NSW State of the Environment: Threatened Species](#), accessed 29 October 2022

²⁶ NSW EPA, [NSW State of the Environment: Threatened Species](#), accessed 29 October 2022

²⁷ Sharnie Kim & Adam Stephen, [Extreme heat wipes out almost one third of Australia's spectacled flying fox population](#), ABC News, 19 Dec 2018, accessed 28 October 2022

²⁸ Craig Welch, [Rising Temperatures Cause Sea Turtles to turn Female](#), National Geographic, 9 Jan 2018, access 28 October 2022.

- 127 ringtail possums died after they became so dehydrated they drank sea water after 4 days of temperatures in the high 30s, in the Mornington Peninsula, Victoria in early 2019.²⁹
- Floods in Far North Queensland killed over 600,000 cattle in 2019. Those that didn't drown died of cold exposure in the summer month of February. The damage bill was estimated at \$2 billion.³⁰
- In all floods, burrowing animals (mammals, insects, reptiles, amphibians and arachnids) and fish are heavily impacted.
- An estimated 475,000 cattle (or about 2% of the national herd) have been affected by flooding in NSW and southern Queensland this year (as have food and feed crops).³¹
- By April this year, Japanese Encephalitis, a tropical mosquito-borne disease, endemic to Asia and the Pacific, was confirmed in commercial pig farms in Queensland, NSW, Victoria and SA causing reproductive losses and neonatal deaths in pigs. The perfect conditions for the virus to travel well south of where it is usually found has been caused by climate change: warming temperatures, record floods and rainfall.³² A zoonotic disease, it threatens not just livestock but also humans, with 37 human cases also recorded and 3 deaths.³³
- Over 3 billion animals died or were displaced during the 2019-2020 bushfires:
 - o 143 million mammals;
 - o 2.46 billion reptiles;
 - o 180 million birds; and
 - o 51 million frogs.³⁴

Climate change is an animal health and welfare issue, as well as an economic threat. Without action on climate change, we can expect further extreme weather events like

²⁹ Lisa Cox, [‘Falling out of tree’: dozens of dead possums blamed on extreme heat stress](#), The Guardian, 7 March 2019, accessed 28 October 2022

³⁰ Tom Major, [Cattle, infrastructure losses following Queensland floods could near \\$2b, farm lobby says](#), ABC News, 16 April 2019, accessed 28 October 2022

³¹ Natasha May, [Floods and livestock losses leave NSW and Queensland farmers reeling from third disaster in three years](#), The Guardian, 2 March 2022, accessed 28 October 2022

³² Frances Vinall, [As Australia's climate changes, a tropical disease advances](#), The Washington Post, 14 April 2022, accessed 29 October 2022

³³ World Health Organisation, [Japanese Encephalitis - Australia](#), 28 April 2022, accessed 29 October 2022

³⁴ p. 2, [Interim Report: Australia's 2019-2020 Bushfires: The Wildlife Toll](#), WWF, 28 July 2020, accessed 28 October 2022

fire and flood, and diseases to threaten our animals (and people). We risk losing even more of them, as well as the life-supporting benefits they provide by contributing to biodiversity.

Earlier this month, the Minister for the Environment, Tanya Plibersek, announced that the Federal Government has set a goal to prevent any new extinctions of Australian wildlife. However, statements about environment and wildlife protections are meaningless unless climate change is effectively addressed through strong policy and action at every level.

Forests are an integral part of the global carbon cycle, as well as home to many of our unique species, absorbing twice as much carbon as they emit each year. In this way, forests are a 'carbon sink'. However if deforestation continues (through either clearing or fire), we risk them becoming a carbon source.³⁵

As a result, in relation to:

- Continuing Action 11: Ensuring climate risks are considered in native forestry via the Forest Monitoring and Improvement Program

VfCA believes that it is important to establish an ambitious timeframe to cease or limit operations like timber harvesting and thinning, constructing access roads, burning, and grazing in NSW's native forests.

In the EPA's own words, "[t]he native forests of NSW are one of our most valuable assets, benefiting the community, wildlife, and the economy."³⁶ Protecting our remaining forests are critical to supporting Mitigation under pillar 2 and ensuring the NSW Government reaches its net zero goals.

Conclusion

By regulating greenhouse gas emissions, the NSW EPA's Climate Change Policy and Action Plan have the potential to drive real and urgent action on climate change and achieve the NSW Government's net zero targets. However, it is imperative that the final versions contain ambitious, science-based targets backed by strong regulatory powers with urgent timeframes.

³⁵ Nancy Harris & David Gibbs, [Forests Absorb Twice As Much Carbon As They Emit Each Year](#), World Resources Institute, 21 January 2021, accessed 29 October 2022.

³⁶ NSW EPA, [Native forestry: NSW overview](#), accessed 29 October 2022

VfCA commends the NSW EPA for its commitment and welcomes timely action on climate change for the safety of our people and communities, and the animals we love and need.

We appreciate the opportunity to provide feedback. As mentioned, VfCA and the former CVO group would be pleased to provide the EPA with independent advice at any time on specific elements of the Policy and Action Plan, particularly where it relates to animal health and welfare.

Yours sincerely



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