Macedon Ranges Wildlife Network

mrwninc@gmail.com
P.O. Box 213 Gisborne Victoria 3437

Submission to the Economy and Infrastructure Committee

Inquiry into Wildlife Roadstrike in Victoria

From: Macedon Ranges Wildlife Network (MRWN)
Contact: Ms Meaghan Willis, MRWN Committee Member
Date: 12 May 2025

Introduction

The Macedon Ranges Wildlife Network (MRWN) is a grassroots, volunteer-led organisation dedicated to the rescue, rehabilitation, and welfare of native wildlife. Our network includes trained rescuers, shelter operators, foster carers and Wildlife Victoria volunteers. We operate in a region experiencing rapid development and frequent wildlife vehicle collisions, making our firsthand experience directly relevant to this inquiry.

In FY2022–23, MRWN handled 2,226 wildlife rescue cases, increasing nearly 20% to 2,652 cases in FY2023–24. This growth highlights escalating pressures in our region, which has become the highest wildlife rescue incident area in Victoria. Volunteer rescuers now respond to an average of 7.2 incidents daily, significantly straining local resources. Macedon Ranges Shire represents nearly 5% of the total statewide rescue case volume and is 200% higher than the second-highest wildlife rescue region (Reference: Report – Reducing the Wildlife Road Toll Forum 2024, Macedon Ranges Shire Council). The majority of these rescues involve native wildlife struck by vehicles, with macropods (Eastern Grey Kangaroos and Swamp Wallabies) accounting for the largest proportion. These incidents pose significant risk of vehicle damage and potential injury to motorists. MRWN rescuers frequently serve as the initial and often only responders, providing support to distressed and potentially injured drivers.

This submission responds to the Committee's eight Terms of Reference (ToR), providing evidence-based insights and practical recommendations. It also draws on statistical data, policy literature, and international best practices to advocate for systemic reform, preventive infrastructure, and improved support for Victoria's volunteer-based wildlife care system.

1. Legislation, Regulation & Public Awareness

Issues: Victoria lacks a coordinated regulatory framework to monitor or deter wildlife road strike. Wildlife vehicle collisions are not reportable incidents under current law, there is no

legal requirement for motorists to report hitting a wild animal unless human injury or property damage occurs. This absence of mandatory reporting severely hampers data collection, making it difficult to identify collision hotspots and respond effectively. Public awareness efforts about wildlife on roads are sporadic and inconsistent across regions, leading to poor driver attitudes (many motorists may ignore, or even deliberately harm wildlife). Inappropriate speed limits on wildlife prone rural roads, often 100 km/h on poorly lit, narrow roads flanked by habitat further contribute to high collision rates.

Recommendations:

- **Enact mandatory wildlife collision reporting legislation** (within 2 hours of an incident) to ensure authorities are alerted for timely intervention and data recording. Implement penalties for failing to report, to underscore the seriousness of hitting wildlife.
- **Launch a sustained, statewide public education campaign** on wildlife aware driving and responsible motorist behavior. This should include media, signage, and community programs to promote empathy for wildlife and encourage drivers to stop and report collisions rather than leaving animals to suffer.
- **Reduce speed limits at night in known wildlife hotspots.** Implement dusk-to-dawn speed limit reductions in high risk road sections (especially where habitat and roads intersect), a measure proven effective in other regions. These lower night speeds, combined with prominent wildlife crossing warning signs and enforcement (e.g. speed cameras), can significantly cut collision rates.
- **Integrate wildlife road safety into driver education.** Introduce comprehensive wildlife safety and awareness modules in driver's education and in school curricula. Early education about the value of wildlife and how to drive safely in their presence will foster long term behavioral change and more respectful attitudes on the road.

2. Volunteer Workforce & Financial Burden

Issues: Volunteers are the backbone of Victoria's wildlife rescue and rehabilitation response, yet they receive minimal financial support. The exponential rise in wildlife road strike incidents has placed overwhelming emotional, physical, and financial burdens on volunteer rescuers. Currently, volunteers are not paid or reimbursed for their time, fuel, equipment, or other expenses, an unsustainable model. Rescuers and wildlife carers often cover extensive out of pocket costs, including vehicle fuel for call outs, veterinary bills, specialized rescue equipment (nets, crates, sedation & euthanasia tools), and ongoing training/certification fees. Only licensed shelters and foster carers are eligible for small government grants (e.g. the DEECA Wildlife Rehabilitator Grants), which do not cover the true expenses incurred and exclude many active rescuers. Meanwhile, veterinary clinics frequently treat injured wildlife pro bono, absorbing significant costs themselves. The cumulative strain on volunteers leads to burnout, financial hardship, and limits the capacity to respond to wildlife in need.

Recommendations:

- **Increase and diversify funding for wildlife rescue organisations.** Significantly expand government funding support through greater allocations to existing programs (such as the Wildlife Rehabilitator Grants program) and explore new funding streams (e.g. a dedicated wildlife levy on car registrations or insurance) to provide sustainable resources. Expanded funding should be directed toward covering volunteer expenses and improving rescue infrastructure.
- **Establish reimbursement programs for volunteers.** Create a structured scheme to reimburse registered wildlife rescuers and carers for essential expenses, including fuel costs for rescue trips, veterinary care costs, first aid supplies, and equipment maintenance/replacement. This would alleviate the financial burden on individuals and acknowledge the service they provide.
- **Invest in volunteer training and support.** Offer subsidised, accredited training programs to equip volunteers with advanced skills (for example, humane euthanasia techniques for severely injured large animals, tranquiliser dart gun certification, and road safety protocols). Funding training and certification not only enhances volunteer safety and effectiveness but also acknowledges their professional-level contribution.
- **Support veterinary partnerships.** Recognize and support veterinary clinics that provide free or discounted treatment for wildlife by granting them access to funding or subsidies (for medications, x-rays, etc.). Formal recognition (awards or public acknowledgement) and modest financial support for these clinics will encourage the continuation of these vital pro bono services and integrate vets more formally into the wildlife rescue network.
- **Improve multi-agency collaboration.** Develop enhanced collaboration protocols between wildlife rescue groups, emergency services (police, SES), and local councils. This could include a centralized 24/7 wildlife rescue hotline (building on Wildlife Victoria's service) that dispatches volunteers and alerts authorities, as well as joint training exercises. Closer coordination will streamline responses to road incidents, improve safety for responders directing traffic or euthanizing animals on scene, and optimize the use of resources across agencies.

3. New & Emerging Technologies

Issues: Victoria has been slow to trial and implement innovative technologies that could reduce wildlife-vehicle collisions. Promising mitigation tools such as wildlife detection sensors, virtual fencing, thermal imaging cameras, and smart road signage have been discussed but few have progressed beyond concept. Limited funding and procedural delays often stall critical pilot projects. For instance, a 2023 proposal by Wildlife Victoria and Macedon Ranges Shire Council to pilot motion-activated wildlife warning signs in regional hotspots has not yet been realized due to funding gaps. Globally, there are successful case studies (e.g. in Canada, Sweden, the USA) demonstrating the effectiveness of technologies like roadside animal detection systems, wildlife overpasses/underpasses with fencing, and virtual fencing devices, but Victoria has not capitalised on these advances. Whilst there is evidence of success, these solutions must be approached with extreme caution. Wildlife has

navigated ancestral songlines for time immemorial, and any intervention that disrupts these natural pathways must be evaluated with care beyond immediate roadstrike hotspots. Measures such as virtual fencing may inadvertently redirect wildlife collisions to adjacent areas, merely shifting rather than solving the problem, and leading to further ecological disruption and animal suffering.

Recommendations:

- **Fast-track the Macedon Ranges wildlife detection pilot.** Provide immediate funding and approval for the proposed 2023 Macedon Ranges Shire Council/Wildlife Victoria pilot project deploying motion-activated wildlife warning signage in high-collision zones. Expedite its implementation to gather data on effectiveness and refine the approach for broader use.
- **Initiate trials of proven technologies.** Adequately resource additional pilot studies exploring measures such as virtual fencing (devices that deter animals from roads when vehicles approach), thermal imaging wildlife sensors, and smart crossing signs. These trials should draw on successful outcomes from other jurisdictions and research – for example, Sweden's use of motion-sensor triggered warning lights and Canada's extensive use of fencing with crossing structures. By referencing and adapting internationally proven models, Victoria can rapidly evaluate what works in our local context. However, any trials of fencing or virtual fencing technologies must include comprehensive ecological impact assessments. Mitigation strategies should prioritize solutions that maintain or restore natural wildlife corridors, rather than enforcing artificial changes to wildlife movement. Initiatives that risk displacing collision hotspots without resolving underlying habitat connectivity issues are inherently inhumane and ineffective.
- **Mandate wildlife-safe road design in new projects.** Incorporate wildlife mitigation technologies into the planning and construction of all new major roads and significant upgrades. This should be a legal requirement or formal policy directive. Measures could include installing wildlife crossing structures (underpasses or overpasses with guiding fences) at known wildlife corridors, virtual fence emitters in high-risk zones, and sensor-based warning systems as standard road assets. Embedding these technologies at the design phase ensures that wildlife safety is not an afterthought but a core criterion for road infrastructure development.

4. Motorist Impact: Trauma & Vehicle Damage

Issues: Collisions with wildlife are not only an animal welfare issue but also a serious public safety and mental health concern. Hitting a large animal can cause significant vehicle damage (often costing thousands in repairs) and risk injury or death to vehicle occupants. Many motorists suffer emotional trauma after striking or killing an animal – especially a large kangaroo or wombat – yet current support for such motorists is minimal. There is little acknowledgement in road safety frameworks of the psychological impact on drivers of injuring animals. Furthermore, wildlife collisions on high speed roads create secondary dangers: for example, volunteer rescuers or Good Samaritans who stop on a busy highway

(such as the Calder Freeway) to assist an injured animal are themselves exposed to oncoming traffic, and subsequent accidents can occur. In summary, motorists face economic strain, emotional distress, and potential physical harm from wildlife road strike, and responders face safety risks on roadsides.

Recommendations:

- **Provide trauma support for affected motorists.** Extend specialised support services to drivers involved in serious wildlife collisions. This could include access to counseling or helplines for psychological trauma, and practical assistance (a hotline for advice on what to do if you hit an animal, coordination with wildlife rescue for the animal, etc.). Raising awareness that such support exists will encourage drivers to seek help rather than silently suffering emotional distress or guilt.
- **Strengthen data collection via insurers and TAC.** Work with the Transport Accident Commission (TAC) and insurance companies to systematically record wildlife collision incidents (including location, species, and damage costs). This improved data will help identify frequent collision hotspots and inform targeted interventions. Having insurers share de-identified collision data with road authorities and wildlife agencies can highlight high risk areas that might otherwise go unreported.
- **Invest in protective road infrastructure for hotspot areas.** Implement targeted infrastructure upgrades at known wildlife collision hotspots to improve safety for motorists and wildlife. Measures should include wildlife exclusion fencing along roads (to funnel animals toward safe crossing points), reduced speed zones with warning signage in high-risk stretches, and roadway lighting or reflectors designed to deter wildlife. These investments will reduce the likelihood of collisions and thus protect drivers from harm.
- **Enhance roadside responder safety protocols.** Develop and enforce formal safety procedures for wildlife rescue responders and other personnel working on roadways. This may involve training volunteers in traffic control and high visibility requirements, providing appropriate warning lights or signs for rescue vehicles, and coordinating with police to secure sites on busy highways when large animal rescues or euthanasia are occurring. By formalizing safe access protocols (similar to those used for clearing vehicle accidents), we can protect both the responders and other motorists during wildlife incident call outs.

5. Impact of Development & Infrastructure

Issues: Rapid urban growth and infrastructure development in Victoria are increasingly fragmenting wildlife habitats and forcing animals to navigate roadways. In regions like Macedon Ranges Shire, human population grew over 16% from 2011 to 2021, leading to expanded housing and roads encroaching on wildlife territory. As natural corridors are severed or narrowed, native animals (kangaroos, koalas, wombats, etc.) are pushed into crossing roads more frequently in search of food, water, and mates. Habitat loss from development, compounded by climate pressures such as drought (which drives animals

farther afield for resources), has significantly increased the risk of road strike. However, current planning and development approvals often do not adequately assess or mitigate impacts on wildlife movement. There is a lack of mandatory consideration of wildlife connectivity in road and urban planning, and developers typically have little or no obligation to invest in wildlife safety infrastructure.

Recommendations:

- **Mandatory fauna impact assessments for development.** Require comprehensive wildlife movement and collision risk studies as part of all new road, subdivision, and infrastructure project approvals. Early identification of how a project might increase wildlife road crossings will allow planners to incorporate mitigation (such as fauna underpasses, escape ramps, or fencing) before construction. These fauna impact assessments should be a standard component of environmental impact evaluations for planning permits. Careful evaluation of fencing or virtual fencing solutions is necessary before implementation in development and infrastructure projects. Wildlife follows ancient ancestral pathways or songlines, and disrupting these traditional routes through imposed fencing solutions risks redirecting wildlife into new collision zones. Any fencing approach must be rigorously assessed for broader ecological impacts, ensuring that wildlife movement patterns and habitat connectivity are preserved, rather than compromised.
- **Integrate wildlife corridors into planning schemes.** Update state and local planning codes to **embed wildlife friendly design**. This includes preserving or creating green corridors that allow animals to travel safely and integrating dedicated wildlife crossing structures (overpasses or underpasses with appropriate vegetation) into major road designs. Development plans should demonstrate how they will maintain connectivity between habitat areas. By treating wildlife crossings as essential infrastructure, similar to drainage or footpaths, authorities can ensure new developments actively reduce roadkill risk rather than exacerbate it.
- **Enforce developer contributions for mitigation.** Implement policies that make wildlife road safety measures a standard condition of large developments and road upgrades. For example, developers could be required to fund or install wildlife mitigation infrastructure (like fencing, crossings, signage) as part of their project. A formal mechanism (similar to contributions for roads or parks) would institutionalize responsibility for wildlife outcomes. Such contributions ensure that the costs of protecting wildlife are shared by those creating the increased risk, rather than falling solely on the community or government later.

6. International Best Practices

Issues: Around the world, numerous effective interventions have been implemented and studied, but adoption locally has been limited. From North America to Europe, approaches like wildlife highway crossings (bridges and underpasses), roadside animal detection systems, and adaptive speed enforcement have yielded significant reductions in collisions. By not keeping pace with these innovations, Victoria is missing opportunities to improve road

safety for both wildlife and people. Our mitigation efforts remain piecemeal and small-scale, whereas other regions treat them as critical, mainstream road safety investments.

Recommendations:

- **Adopt world-class wildlife crossing structures.** Make internationally recognized solutions like wildlife underpasses and overpasses standard features of major roads in wildlife-rich areas of Victoria. For example, Canada's Banff National Park has implemented fencing combined with crossings, resulting in an **80% reduction** in wildlife collisions. By mirroring such successful models (adjusted for local species and landscapes), Victoria can drastically reduce roadkill. Priority locations for crossings should be identified via wildlife corridor mapping and collision data. Furthermore, International experience underscores that wildlife fencing, virtual or physical, must be implemented cautiously, as poorly planned fencing can sever ancestral wildlife songlines, and shift collision problems to adjacent areas. Explicit caution is needed to prevent fencing solutions from becoming counterproductive or inhumane.
- **Pilot advanced detection and warning systems.** Deploy pilot programs for dynamic animal detection technologies, inspired by successes abroad. Sweden, for instance, uses motion sensors that activate warning lights when large animals approach roads. Similar systems and "virtual fence" auditory deterrents have shown promise in Europe and the US. Victoria should trial these innovations on a few high risk roads, monitor their effectiveness in reducing crashes, and then scale up those that prove effective. Ongoing evaluation and adaptation of international techniques will keep Victoria at the forefront of road safety innovation.
- **Foster international collaboration and knowledge exchange.** Establish formal channels for sharing data and strategies with road safety and wildlife experts globally. Victoria's road management agencies and wildlife authorities should participate in international conferences, research collaborations, and benchmarking exercises focused on wildlife-road mitigation. Regularly comparing outcomes and methods with other jurisdictions (e.g. through Austroads or international wildlife-road conferences) will help identify best practices to import. Continuous learning from global experience will ensure local measures are aligned with the best available science and technology.

7. Data Collection and Integration

Issues: Effective policy and mitigation depend on reliable data, yet current wildlife road strike data in Victoria is fragmented and incomplete. Wildlife Victoria's emergency response database is the primary repository for incidents (through calls from the public), but it captures only the rescues that are reported. Many collision events go entirely unrecorded – volunteers estimate that the majority of road kills are never logged, especially if the animal dies on impact and no one reports it. Additionally, various stakeholders hold separate data: veterinarians treat road injured wildlife, councils and DELWP (now DEECA) officers remove carcasses, and local rescue groups handle unreported calls. These datasets are not

integrated. The lack of a centralized database or reporting mechanism makes it difficult to pinpoint true hotspots or track trends over time. Without unified data, the scope of the road strike problem is likely underestimated, and opportunities for targeted intervention are missed.

Recommendations:

- **Establish a centralized wildlife road strike database.** Provide funding to Wildlife Victoria (or another suitable agency) to develop and maintain a central database for all wildlife collision incidents in Victoria. This system should compile reports from multiple sources (Wildlife Victoria calls, DELWP/DEECA reports, council roadkill pickups, vet clinics, Insurance companies, TAC etc.). A unified database would enable real-time mapping of incidents and more robust analysis of patterns, informing where to deploy mitigation measures or enforcement.
- **Mandate cross-agency reporting and data sharing.** Introduce requirements for relevant agencies and groups to report wildlife road incidents into the central system. For example, veterinary clinics should log when injured wildlife from road accidents are brought in; council workers/contractors should log locations and species of roadkill they collect; police and VicRoads incident reports should flag crashes involving animals. Creating a formal duty to report (paired with simple reporting tools) will greatly improve data completeness.
- **Engage the public with reporting apps/tools.** Leverage technology by providing easy public reporting avenues for wildlife road strike. A smartphone app or an SMS based reporting tool could allow motorists or passersby to quickly report a roadkill or injured animal (with geolocation). Public-friendly reporting, integrated with the central database, would tap into a larger observer network. Combined with awareness campaigns (“If you hit or see injured wildlife, report it!”), this could substantially increase reporting rates. Data collected should be open (where appropriate) for researchers and community groups to further analyze and contribute to solutions.

8. Other Related Matters

Issues: In addressing wildlife road strike, broader ethical, emotional and cultural considerations must be acknowledged. Volunteers and professionals responding to wildlife incidents often face significant psychological trauma, regularly confronting severe injuries and being required to euthanise critically injured animals. These distressing experiences frequently lead to compassion fatigue and emotional burnout.

Furthermore, a meaningful cultural shift in public attitudes towards wildlife is necessary. Negative perceptions persist, with some individuals viewing wildlife, particularly kangaroos, as nuisances or pests. Misleading narratives, such as labelling kangaroos a "plague," encourage indifference or even cruelty, despite lacking scientific basis. Such rhetoric undermines conservation efforts and prevents broader community empathy towards native wildlife. Public education about coexistence with wildlife remains inconsistent and inadequately funded, leaving many citizens unsure how to respond appropriately when encountering injured animals or how to drive safely in wildlife-rich areas.

Finally, scrutiny and regulation of industries and recreational activities impacting wildlife must be strengthened. The kangaroo pet food industry remains poorly regulated, resulting in widespread inhumane practices and unchecked exploitation of kangaroos. Similarly, recreational duck hunting involves killing animals primarily for entertainment, normalising cruelty and fostering societal acceptance of animal maltreatment. Both practices are ethically indefensible and negatively influence public attitudes toward wildlife welfare. Addressing these ethical dimensions, although complementary to the core inquiry, is essential for a comprehensive and effective approach to wildlife protection and conservation in Victoria.

Recommendations:

- **Embed wildlife empathy in education and community programs.** Implement mandatory wildlife empathy and coexistence curricula in schools (for example, as part of sustainability or citizenship education) to foster respect for native animals from a young age. Additionally, run community workshops or wildlife awareness events (such as “Wildlife Awareness Month”) to educate the broader public on the value of wildlife, how to prevent collisions, and how to respond if one occurs. Cultivating a culture of care and responsibility toward wildlife will create social pressure for safer driving behaviors and support for mitigation measures.
- **Abolish the kangaroo pet food industry**. A shameful industry responsible for the brutal slaughter of kangaroos for profit. It represents the world's largest commercial land-based wildlife massacre and is deeply unethical, especially to Indigenous Australians for whom kangaroos are a Creator Spirit and Sacred Totem. It is also opposed by many as continued extractive colonialism.
- **Ban the annual duck hunting season** as recommended by the recent Victorian parliamentary inquiry. Recreational hunting normalizes cruelty, contributes to animal suffering, and has broader social implications by fostering acceptance of maltreatment of animals and potentially humans.

Conclusion

Wildlife road strikes are **not** an inevitable consequence of modern life; it is a systemic failure of planning, design, enforcement, and cultural values. The current situation places an unfair burden on volunteer rescuers and compassionate motorists, who are left to cope with the aftermath of these collisions. Without meaningful intervention, we will continue to witness the needless loss of Victoria’s native animals and the burnout of the volunteers who strive to save them. Significantly reducing wildlife vehicle collisions in Victoria will require immediate and coordinated multi-sector action: legislative reform to mandate reporting and integration of wildlife considerations, enhanced infrastructure and technology deployments to make roads safer, comprehensive data collection to guide efforts, robust community education, sustained support for the volunteer network, and the strategic adoption of proven practices from around the world.

MRWN urges the Committee to seize this opportunity to enact bold, data-driven reforms. A road that is safer for wildlife is also safer for motorists, protecting our wildlife heritage goes

hand in hand with improving human safety. We recommit to the principle that wildlife matters not only to our ecosystems but to the identity and natural heritage of Victoria.

MRWN would welcome the opportunity to further contribute to this process, and we are prepared to appear at a public hearing to elaborate on our submission or answer any questions the Committee may have.

Sources and Supporting Materials

- RACV (2024). Animals hit by cars in Victoria increase 43% in one year
- Wildlife Victoria (2023). Annual Report
- NC Review (2023). Wildlife collisions rise in Victoria
- DEECA (2024). Wildlife Rehabilitator Grants
- AAMI/Suncorp (2024). Animal collisions report
- Allianz (2023). Sustainability Report 2023
- Parks Canada (2024). Wildlife crossings in Banff National Park
- ESA Journal (2023). Evaluating wildlife crossings
- VicRoads (2022). Crash statistics
- ABS (2021). QuickStats: Macedon Ranges
- NSW Roads and Maritime Services (2023). Wildlife-vehicle collision mitigation trial
- Sweden Traffic Tech Today (2022). Roadside wildlife warning systems
- Western Transportation Institute (2023). Road ecology and mitigation strategies
- Macedon Ranges Shire Council (2024). *Reducing the Wildlife Road Toll Forum 2024 – Report*. (Statistics on Macedon Ranges wildlife rescue cases) mrsc.vic.gov.au.
- van der Ree, R., Smith, D.J., & Grilo, C. (2015). *Handbook of Road Ecology*. Wiley-Blackwell. (Specifically chapters addressing ecological impacts of fencing and wildlife movement disruption.)