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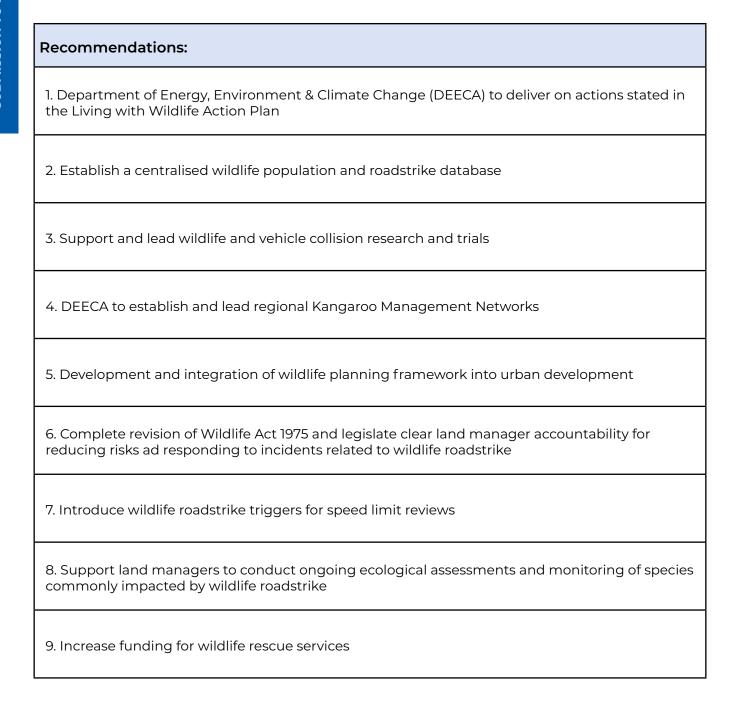
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Executive summary

Wildlife roadstrike is a growing concern in Victoria, with serious implications for road safety, community wellbeing, animal welfare, and biodiversity conservation. In Hume City, where urban growth is occurring amongst critically endangered grassland ecosystems, the issue of wildlife roadstrike is rapidly escalating - particularly involving Eastern Grey Kangaroos.

This submission outlines the challenges faced by Hume City Council in responding to this issue, including unclear land manager responsibilities, rapid urbanisation, data fragmentation, and an over-reliance on volunteer networks. In 2023, Sunbury recorded the highest number of wildlife collision claims in Victoria, and Hume City saw a 137% increase in reported kangaroo collisions over five years, from 2019 to 2024 inclusive.

Wildlife roadstrike is a systemic issue that demands a coordinated, well-resourced, state-led and proactive approach.



About Hume City

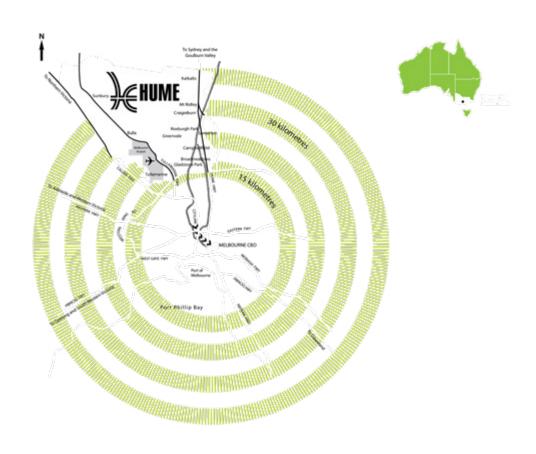
Hume City is a place of great contrasts - in geography, economy, background and cultural diversity. Located just 15 kilometres north of the centre of Melbourne, Hume City is one of the fastest growing and most culturally diverse communities in Australia.

Hume City's population is expected to grow to 397,453 by 2041 from its current estimated 250,001 (source: id profile™). Over the next five to twenty years, urban growth, densification of established areas, and related changes in population and household structures will drive an increase in service delivery and infrastructure requirements.

Hume City covers an area of more than 504 square kilometres. It stretches 30 kilometres from east to west, and over 22 kilometres from north to south. The southern parts of Hume City are represented by well-established suburbs. Expanding out from there are Hume's rapidly developing new suburbs and employment areas, including the future Metropolitan Activity Centre at Cloverton, 35 kilometres from the city centre.

In the west of the municipality, Sunbury is a well-established town, with heritage places around the centre and new areas that expand in all directions in a spoke and hub development pattern. Separated from the municipality's east by rural areas that protect the operations of Melbourne Airport, Sunbury is more than 35 kilometres from the CBD.

Hume City's communities are served by major road transit routes including the Tullamarine Freeway, Western Ring Road, Hume Freeway and Calder Freeway. Melbourne Airport, in the south of Hume, is part of a significant industrial area in the south and east of the municipality. Logistics and related businesses in Hume benefit from access to multiple freeway networks in addition to Melbourne Airport.



Hume City's natural landscape

Hume City's natural landscape is characterised by expansive plains, volcanic hills and deeply cut river valleys. The prominent landscape summit at Mt Holden provides scenic views over Sunbury and greater Melbourne, to Port Phillip Bay and the You Yangs. Hume City's landscape includes impressive remnant trees that are hundreds of years old. Old, gnarled River Red Gums are common along creeks and reserves throughout Mickleham and Greenvale, providing vital habitat for many wildlife species.

The volcanic cones across the municipality hint at the basalt geology of much of Hume that has nurtured the municipality's significant grasslands and distinctive biodiversity. These volcanic cones, including Reds Rock Hill, Deverall Hill, Fitzgerald Hill, O'Brien Hill, Burke's Hill, Crowe Hill, Fairbanks Hill and Gellibrand Hill are all part of the world's third largest basalt plain that stretches west to the South Australian border.

These cones continue to provide important view lines that punctuate the landscape. Hume City's waterways include the Jacksons Creek, Deep Creek and Emu Creek in the west, the Merri Creek and Moonee Ponds Creek in the east and the Maribyrnong River in the South. Each are connected to a network of smaller streams.

Waterways support abundant native vegetation that plays an essential role in supporting wildlife habitat and movement across corridors. Hume City's waterways vary in their degree of health, which has implications for healthy wildlife. Natural waterways are essential for the spiritual, cultural, mental and physical wellbeing of people, and have been central to the wellbeing of the Wurundjeri Woiwurrung people for tens of thousands of years.



Introduction

Hume City Council welcomes the opportunity to contribute to the Victorian Parliamentary Inquiry into Wildlife Roadstrike and commends the Committee's attention to this escalating issue. Wildlife roadstrikes are not only a matter of ecological concern, but they also impact community safety, animal welfare, and the emotional wellbeing of residents, visitors and volunteers.

As one of Victoria's fastest-growing municipalities, Hume City is experiencing the direct consequences of urban expansion into areas of ecological significance. The municipality is home to significant kangaroo populations, extensive remnant grasslands, and a network of creeks and reserves that support diverse native wildlife. However, the intersection of rapid urban development, habitat fragmentation, and increasing traffic volumes is leading to a rise in vehicle-wildlife collisions, particularly involving Eastern Grey Kangaroos – referred to as kangaroos for the remainder of this document.

This submission draws on available data, local insights, community feedback, and on-the-ground experiences to illustrate the severity and complexity of the issue in Hume. It outlines both the proactive steps Council is taking and the systemic limitations we face, including lack of legislative direction, formal authority, inconsistent planning requirements, fragmented data, and insufficient wildlife rescue services.

Through this submission, Council calls for the development of a coordinated, state-led strategy to reduce wildlife roadstrike across Victoria. This must include clear roles and responsibilities for all land and road managers, consistent planning and population management frameworks, ongoing investment in data, research and innovation, and support for the dedicated volunteers.

Council acknowledges there are opportunities to improve processes within the Local Government sector and is currently undertaking a review of kangaroo management in the municipality as part of the <u>Land and Biodiversity Plan 2023-2030</u>. During on this ongoing review, Council has begun implementing internal process improvements and collaborating with relevant authorities to make immediate progress where possible.

Hume City Council is committed to working collaboratively with other municipalities and levels of government to deliver better outcomes for wildlife, motorists, our environment and our growing community. We believe that with leadership, coordination, and investment, meaningful change is possible.



Extent of wildlife roadstrike

Rapid urban growth is occurring in and around areas of high-value grassland habitat across Hume City, particularly in Mickleham, Craigieburn, Greenvale, Kalkallo, and Sunbury - regions that are either within or adjacent to the municipality's designated green wedge, an urban exclusion zone that protects grassland biodiversity and the airport. This urban expansion is increasingly fragmenting wildlife habitat and isolating animal populations, resulting in the land-locking of species, most visibly the kangaroo.

Further exacerbated by drought conditions, habitat resources diminish and become inaccessible or contaminated due to over-population. Kangaroos are then compelled to move through urbanised areas and across major roads in search of food, water, shelter and space. This movement is contributing to a marked rise in wildlife-vehicle collisions. The issue is particularly acute for kangaroos, which are highly mobile but strongly tied to their home ranges.

The following conservation reserves in Hume City host significant and permanent kangaroo populations and are now hotspots for wildlife roadstrikes due to rapidly encroaching urban development and increasing traffic volumes:

- Woodlands Historic Park, Greenvale (managed by Parks Victoria)
- Mt Ridley Nature Conservation Reserve, Mickleham (managed by Parks Victoria)
- Mt Holden Reserve, Sunbury (managed by Hume City Council)
- Emu Bottom Wetlands and Reserve, Sunbury (managed by Hume City Council)
- Broadmeadows Valley Park, Broadmeadows (managed by Hume City Council)

The frequency and severity of these collisions continue to escalate, and the impacts are being felt by local residents, motorists travelling within Hume City, and emergency responders alike. Council is receiving a growing volume of community reports expressing concern for animal welfare (including the emotional distress caused by encountering injured or deceased wildlife), road safety, and the detrimental impact to the amenity of our community with deceased animals left on roadsides. Without strategic intervention, the problem is expected to worsen alongside continued urban development.

Key date highlights include:

- Sunbury recorded the highest number of animal collisions in Victoria and the second highest in Australia, based on analysis of over 21,000 AAMI animal collision claims in 2023. Craigieburn ranked fifth highest in Victoria.¹
- Metro Trains have provided anecdotal feedback that the Sunbury line has the highest volume of wildlife collisions with trains across their network.

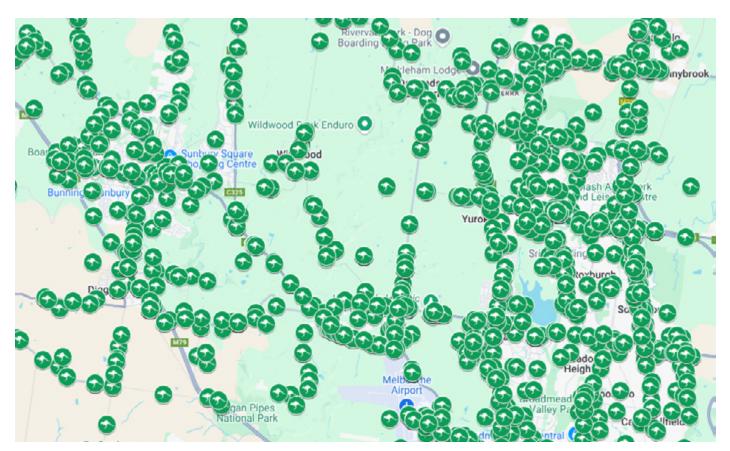
Data obtained from Wildlife Victoria shows that in Hume City between 2019 - 2024 inclusive2:

- 85% of reported vehicle collisions with wildlife are with kangaroos.
- 137% increase in reported collisions from 2019 to 2024, totalling 3,629 incidents (see Table 1 on the next page).
- High collision rates on major state-managed roads: Mickleham Road, Hume Highway, Calder Freeway, Somerton Road, Sunbury Road, Lancefield Road, and Vineyard Road.
- Emerging hotspots are concentrated along rural roads that connect expanding urban areas and feature low lighting, roadside vegetation, 80km/h+ speed limits, and proximity to permanent kangaroo habitats.

Wildlife Victoria also notes that these figures are likely underestimates, as many animals are not killed on impact and may retreat into private property, bushland, or reserves, where they are not recorded.

https://www.suncorpgroup.com.au/news/news/animal-collisions-2024

² Members of the public reporting a kangaroo / vehicle collision to Wildlife Victoria



Google map: representing data from Wildlife Victoria - 'Vehicle collisions with kangaroos in Hume 2019 - 2024 inclusive'.

Table 1: Number of reported vehicle collisions with kangaroos in Hume City

Incident Suburb	2019	2020	2021	2022	2023	2024	TOTAL
Sunbury	75	64	52	83	126	203	603
Craigieburn	84	56	49	74	132	139	534
Greenvale	62	36	52	60	89	145	444
Mickleham	45	28	47	59	81	161	421
Diggers Rest	40	23	34	35	74	79	285
Melbourne Airport	10	7	10	32	46	80	185
Oaklands Junction	27	9	19	19	25	48	147
Other	142	78	111	140	244	295	1,010
TOTAL	485	301	374	502	817	1,150	3,629

Table 1: Data obtained from Wildlife Victoria - 'vehicle collisions with kangaroos in Hume City 2019 - 2024'.

Impacts of wildlife roadstrike

Wildlife roadstrike has far-reaching impacts that extend well beyond the initial collision. The consequences are deeply felt by the wildlife involved, the community members who witness or are affected by these events, and the volunteers and carers who bear the emotional and physical burden of response. While roadstrike is often measured in numbers, the broader impact on welfare, safety, and wellbeing is significant and growing.

Impacts to wildlife

The most direct and distressing impact of roadstrike is to wildlife itself. In Hume City, most recorded incidents involve kangaroos, who are often not killed on impact. Instead, many suffer severe injuries - including fractures, internal trauma, and shock - before moving off-road into bushland or private property where they may die slowly and out of sight. Secondary wildlife roadstrike can occur when carnivorous animals feed on deceased kangaroos, including locally important wedge-tailed eagles.

Even when fatal, collisions are rarely quick or painless. Deceased female kangaroos may carry young in their pouches, meaning a single incident can result in multiple animal deaths or orphaned joeys requiring intensive care. Non-lethal injuries can also lead to prolonged suffering, starvation, or predation. The lack of dedicated emergency response capacity in most municipalities further compounds these outcomes, leaving injured animals exposed for hours or days before help arrives - if it arrives at all.

Wildlife roadstrike represents a growing animal welfare crisis, particularly in growth municipalities like Hume, where traffic volumes and kangaroo populations are increasing simultaneously. Without proactive planning, improved infrastructure, and population management, this issue will continue to escalate in both frequency and severity.

Impacts to community

The frequency of these events in high-growth areas contributes to a general sense of frustration, helplessness, and growing pressure on Council and emergency services to act. In the absence of clear, coordinated responses from government agencies, the burden of expectation is increasingly placed on local authorities.

Vehicle damage and personal injury

Wildlife roadstrikes pose a potential for personal injury, with drivers potentially swerving or breaking to avoid collisions. Roads on urban fringes generally have 80km/h speed limits, with low-light visibility at times of high mob movement during dawn and dusk. Of these events in high-growth areas contributes to a general sense of frustration, helplessness, and growing pressure on Council and emergency services to act. In the absence of clear, coordinated responses from government agencies, the burden of expectation is increasingly placed on local authorities.

The average cost of damage to a vehicle in the event of a kangaroo collision is \$4,000 and 15% of vehicles involved in kangaroo collisions are completely written off1.

Health and wellbeing

Wildlife collisions have a strong emotional and psychological impact on the local community. Residents frequently report being distressed by the sight of injured or deceased animals on roadsides, particularly when driving through growth areas where kangaroos are often seen close to homes, schools, and shopping centres. The shock of hitting a kangaroo or witnessing a collision can be deeply traumatic, especially for children or individuals who value and care for native wildlife. Anecdotal reports from newly arrived residents showed that they are fearful of kangaroos living in nearby open spaces and are scared to leave their homes or drive in newly developed estates, particularly in Mickleham and Kalkallo.

Kangaroo collisions cost Australians more than \$6M per year - report Car News | CarsGuide



Given that thousands of people use this road daily, it is crucial that appropriate measures are taken to address these safety issues... enhanced signage to warn drivers of wildlife crossings and potential hazards would be a beneficial step in mitigating risks.

- 5 March 2025

77

"

We have had many workers who has had their cars damaged in the last 3 months as a result of kangaroo collisions. Aside from the cost and inconvenience, these encounters can be extremely dangerous and potentially life-threatening.

- 8 April 2025

"



Just last week, my brother's car was involved in a collision with a kangaroo, highlighting the growing danger in our area. Although I've lived here for nearly three years, I've recently noticed a significant rise in kangaroo sightings, likely due to the ongoing construction near the Mount Ridley Conservation Park and the Mt Aitken extension road.

- 19 April 2025

77

"

I have been extremely saddened at seeing the large amount of deceased and injured kangaroos and wildlife when driving from Sunbury to Mickleham every day.

- 24 February 2025

77

"

My experience left me traumatised and no one should have to experience that not to mention the incredible damage that was done to my car... This issue is very pressing and needs to be dealt with as soon as possible, to keep the Greenvale community and surrounding suburbs safe when driving on Mickleham Road. Nighttime is most dangerous!

- 24 February 2025

77

"

I am genuinely concerned for the safety of myself and other drivers. I am planning on moving into my new home in Sunbury in the next few months and the trauma I have endured driving on Hume roads is making me rethink moving in!

- 9 April 2025

"

What is Council doing?

Hume City Council is responding to impacts of wildlife roadstrike through a range of reactive operational responses. These efforts include collection of deceased animals, installation of static signage (yellow diamond sign with a kangaroo icon) and community education.

However, current initiatives are limited by a lack of strategy, formal guidance from state agencies, and cross-agency coordination. Without legislated requirements, capacity to proactively respond to wildlife roadstrikes is dependent on community pressure and workload prioritisation.

Incident response

When notified by the community, Council collects deceased animals from public roads and reserves where they pose a risk to public safety or amenity. However, unless the incident is causing a direct traffic hazard, collections are currently limited to roads with speed limits below 60km/h. This restriction is due to the requirement for traffic management on higher-speed roads, which can often be considered cost-prohibitive. As a result, carcasses are often left on roadsides in higher-speed zones, contributing to repeat requests, negative community sentiment and distress. It is common practice for wildlife rescue volunteers and members of the public to drag kangaroos to the roadsides after an incident, removing the road hazard and deprioritising the incident response.

Reports of injured native animals are directed to Wildlife Victoria for a volunteer to attend to the incident, or to Victoria Police where immediate euthanasia is required.

Traffic infrastructure

Traffic safety measures relating to wildlife are currently implemented on a reactive basis. Static signage warning of kangaroos is typically installed following multiple reports or incidents, but there are no formalised triggers that guide when or where signage should be placed. Council is hesitant to clutter public roads with excessive signage, and do not respond to each request with an installation. The common sentiment that 'signs don't work' often leads to inaction, with no alternative solutions considered due to a lack of awareness and resources.

Community engagement

Council is taking a proactive role in educating the community about how to live safely and respectfully alongside local wildlife. Through its Living with Wildlife program, Council delivers information sessions and public campaigns focused on kangaroo behaviour, safe driving, and what to do in the event of a wildlife collision. For example, in May 2025, Council hosted a series of community events titled 'Kangaroos in Hume – Information Sessions', delivered at Global Learning Centres in Craigieburn, Sunbury, and Broadmeadows. These will be extended to community centres in Kalkallo, Mickleham and Greenvale new communities may be unaware of the risks related to the presence of kangaroos.

These sessions aim to build confidence in responding to wildlife encounters, reduce community fear, and improve reporting to appropriate agencies. Council also uses its digital platforms to share educational content and respond to resident concerns, which are becoming increasingly frequent as collisions rise. However, the scale of these inquiries is placing pressure on teams without dedicated capacity to manage wildlife-specific cases. While community engagement remains a critical part of Council's response, it needs to be supported by strategies, stronger cross-agency coordination and consistent messaging at a state level to ensure residents receive accurate, timely, and effective information.

Current challenges

Rapid urban development

The pace and scale of urban development in Melbourne's outer suburbs is the most significant contributor to the increase in wildlife roadstrike. As municipalities like Hume City undergoes rapid population growth and infrastructure expansion - particularly in suburbs such as Mickleham, Craigieburn, Kalkallo, Greenvale, and Sunbury - development is extending deeper into previously rural and ecologically sensitive areas.

Many of these new housing estates, road networks, and commercial zones are being constructed adjacent to or between historical habitat areas and conservation reserves. In doing so, they disrupt established movement corridors for wildlife, particularly kangaroos, and reduce the availability and quality of native vegetation and water sources.

The consequences of this rapid development include:

- Habitat fragmentation and land-locking, which isolates wildlife populations and severs natural travel routes to food, water, and shelter.
- Increased interface between people and wildlife, leading to safety concerns, fear, and conflict in new residential areas.
- Higher traffic volumes on newly constructed or expanded roads near habitat areas, increasing the risk of wildlife roadstrikes.

New road projects have not systematically incorporated wildlife-sensitive design features, particularly as wildlife movement corridors are not identified early in the planning process, and there is no binding process that ensures this consideration. In addition, limited coordination with state road authorities has made it difficult to implement consistent approaches to mitigation where road management responsibilities overlap or shift between agencies. As urban development continues to encroach on conservation areas, this lack of a standardised and proactive traffic response leaves both wildlife and road users vulnerable, relying on the occurrence of an incident to lead to consideration.

As this rapid urban development expands around conservation reserves, parklands, and rural land, kangaroos are increasingly confined to shrinking patches of habitat that are bordered by roads, fences, and residential areas.



Photo: Kangaroos on overlooking urban development from Mt Holden, Sunbury.

Without a coordinated, forward-looking approach, urban development in growth areas will continue to unintentionally create ecological bottlenecks, trap wildlife within shrinking pockets of land that is locked and expose communities to avoidable road safety and animal welfare incidents.

Kangaroos are highly social and territorial animals, forming structured mobs that are strongly attached to their home ranges. Once established, these mobs are unlikely to relocate voluntarily - even when their habitat becomes degraded or dangerous. In land-locked situations, population pressures escalate due to the limited space available, often leading to:

- Overgrazing and habitat degradation, which further reduces available food and cover.
- Increased intraspecies conflict within mobs, especially during breeding seasons.
- Heightened risk of disease and stress-related mortality due to overcrowding.
- Consumption of environmental weed Phalaris aquatica leading to an incurable condition called 'staggers', leading to involuntary movement across roads and into fencing, ultimately leading to death.
- Escalating wildlife roadstrike, as kangaroos attempt to move beyond confined reserves to find preferable resources or mates.

These populations are often invisible until a crisis point is reached, typically in the form of frequent vehicle collisions or public concern over animal welfare. Land managers may not become aware of the issue until residents begin reporting kangaroos trapped behind fences, injured on roadsides, or gathering in unexpected numbers in urban green spaces.

Land and road manager accountability

One of the most significant barriers to effective management of wildlife roadstrike in Victoria is the lack of clear, legislated and coordinated accountability among land and road managers. Wildlife do not recognise municipal or tenure boundaries - but unfortunately, these boundaries continue to determine how, when, and whether a response occurs.

Across Hume City, responsibility for managing roads, reserves, and surrounding landscapes is shared between local councils, state agencies such as DTP and Parks Victoria, private developers, and other public stakeholders. However, there is no unified framework or legislative obligation that ensures these entities proactively plan for wildlife welfare or road safety risks related to wildlife movement.

Landowners may face potential liability from the Victorian Conservation Regulator for development that leads to land-locking and animal welfare issues - highlighting the risks of not embedding wildlife considerations into early design and planning frameworks.

Additionally, there is no framework or legislative obligation to respond to incidents of injured or deceased animals but managed as a road hazard or risk to public amenity, which are responded to in varying timeframes depending on the land manager and their procedures.

As a result:

- Kangaroo Management Plans (KMPs) are inconsistently applied without landscape-wide planning and rarely monitored after implementation.
- State-managed roads, which account for a high proportion of wildlife collisions, are often slow or negligent in responding to wildlife carcass removal unless the animal poses a traffic hazard.
- Private landowners in urbanising areas may not fully understand their legal responsibilities for managing wildlife populations on their land, particularly when fencing or development increases the risk of land-locking.
- Deceased animals are left to degrade on roadsides, driving frustration and repeat enquiries from the public.
- Local councils are often the main recipients of community complaints but lack both authority and resources to respond comprehensively.

This disconnect is underscored by current guidance from DEECA, which states:

Landowners are responsible for managing risks caused by wildlife on their land and for ensuring land use change does not contravene the Wildlife Act 1975 and Prevention of Cruelty to Animals Act 1986. Where kangaroos occupy undeveloped land in an urbanising landscape, it is the landowner's responsibility to ensure the welfare of kangaroos is not compromised. - DEECA, Guidance Note for Managing Kangaroos in Victoria.

The Department of Energy, Environment and Climate Action (DEECA) oversees the management and protection of kangaroos across Victoria, however, the Victorian Government itself does not currently have the operational structure or funding to support on-ground incident response, meaning this guidance is rarely enforced and difficult to apply in practice.

Without a state-led, clearly defined framework that assigns consistent legal and procedural responsibilities across all land and road managers, the current situation will remain fragmented. This results in continued animal welfare issues, public confusion, and growing burdens on other landowners, volunteers, and the broader community.

Data management

Whilst Council manages a range of processes related to wildlife roadstrike (such as environmental planning, traffic management, roadside vegetation management, open spaces, community engagement, and removal of deceased animals), we are not currently capturing data on wildlife populations, wildlife roadstrikes or locations of signage assets.

Hume City Council has recently collaborated with Wildlife Victoria through the Road Toll Reduction Project¹. To support this collaboration and have access to wildlife roadstrike data, Council has financially contributed to Wildlife Victoria, totalling \$11,000 (inc. GST). This data has enabled Council to better understand locations of concern, volumes of incidents and insight into their volunteer network in relation to incident response in the Hume municipality

Whilst rescue data from Wildlife Victoria has been critical in driving the review into kangaroo management across the Hume municipality, it has limitations to its accuracy and ability to provide a complete picture of the issue which includes:

- · Not all wildlife incidents are reported to Wildlife Victoria.
- · Other local wildlife rescue organisations are responding to incidents in Hume City.
- · Non-registered volunteers respond incidentally.
- · Kangaroos can continue jumping and often seek privacy when injured or dying.
- · The location and detail accuracy relies on volunteers.
- Reported incidents can fluctuate depending on public awareness and selection of Wildlife Victoria.

Volunteer capacity

Much of the immediate response to injured or deceased wildlife still falls to a small and overstretched volunteer workforce, whose efforts are not formally resourced or supported at scale. As Council increases community awareness, this will lead to increased pressure on wildlife rescue volunteers.

These individuals, often working independently or through Wildlife Victoria, respond to reports of injured animals, carry out pouch checks on deceased kangaroos, and transport wildlife to veterinary care or rehabilitation. They are attending incidents at all hours, in all weather, and frequently at personal expense.

¹ wildlifevictoria.org.aru/advocacy/wildlife-road-toll-reduction-project

Within our municipality, 15 volunteers are currently registered with Wildlife Victoria. These individuals had attended 21% of reported incidents in Hume City between 2019-2023, with the remaining 79% of responses covered by volunteers from neighbouring municipalities such as Whittlesea, Melton, and Macedon Ranges.

The increasing volume of roadstrike incidents is placing an unsustainable burden on these volunteers. Many are self-funded, operating without formal support, insurance, or mental health assistance. Anecdotal reports of burnout and trauma is high among responders, particularly those who regularly deal with severely injured or deceased animals. Members of the public and volunteers often take it upon themselves to move carcasses off roads and check pouches for surviving joeys each morning, reflecting both compassion and desperation in the absence of structured support.

This model is not sustainable. Without a coordinated, adequately funded workforce - backed by training, safety protocols, and ongoing support - volunteer reliance risks becoming both a welfare issue and a point of failure in the wildlife roadstrike response system Council is appreciative of the work of wildlife volunteers and seeks to collaborate more formally with state agencies and partners to strengthen this essential capacity. Over-reliance on volunteers is exposing systemic vulnerabilities and highlighting the need for coordinated, government-led action.

Lack of viable options

A major challenge facing Council is the lack of viable, publicly acceptable, and cost-effective solutions to address wildlife roadstrike. While various management approaches have been trialled or proposed across Victoria, few have proven consistently effective or appropriate in an urbanising context like Hume City.

The absence of accessible, proven, and affordable options places Council in a difficult position. Community expectations continue to rise, yet the tools available remain limited. This reinforces the urgent need for State Government intervention to research, develop and fund regionally appropriate, evidence-based mitigation strategies that are acceptable to both the community and the broader ecological context.

Findings from the Transport for NSW's recently commissioned literature review and directions paper Using technology to *Reduce Wildlife-Vehicle Collisions*² may guide the Victorian Government's future interventions.

Research and development into emerging technologies would be welcomed by Council, as managing human behaviour is currently deemed to be a more accessible solution.

Culling

Ethical lethal control methods such as culling remain deeply unpopular with parts of our community. Previous considerations of kangaroo culling programs in Hume have been met with strong public backlash, including protests and formal petitions, specifically at Woodlands Historic Park which is managed by Parks Victoria. Council has not pursued these measures on public land, as perceived community sentiment remains strongly aligned with non-lethal, welfare-first approaches to wildlife management.

Fencing

While roadside fencing can reduce collisions in some locations by physically preventing wildlife from accessing roads, it also presents significant ecological drawbacks. In Hume, many high-risk roads run adjacent to conservation reserves, waterways, and remnant grasslands that serve as habitat corridors for a range of native species - not just kangaroos. Installing exclusion fencing in these areas' risks severing critical movement pathways and disrupting landscape connectivity, which is vital for species migration, genetic diversity, and long-term ecosystem health.

Fencing also tends to push wildlife movement to unfenced sections of road, potentially shifting rather than solving the problem unless paired with extensive crossing infrastructure. These combined issues make fencing a costly and ecologically complex solution that is not well suited to Hume's dynamic and growing peri-urban landscape.

Recently popular virtual fencing technologies have been trialled as a method to reduce wildlife-vehicle collisions in Victoria, with current research showing limited long-term effectiveness.

 $^{2\,}transport.nsw/gov.au/system/files/media/documents/2025/Using-technology-to-reduce-wildlife-vehicle-collisions-Directions-Report.pdf$

Many animals adapt to or ignore the deterrents over time, also known as habituation. Kangaroos have demonstrated variable behavioural responses to virtual fencing, with studies indicating that they often habituate quickly to audio-visual deterrents, reducing the effectiveness of this method in high-mobility populations.



Photo: Kangaroos at Woodlands Homestead - Woodlands Historic Park, Greenvale.

Road signage

Commonly requested mitigation tools, such as wildlife signage, can be limited in their effectiveness. Research has found that up to 40% of Australian drivers ignore static wildlife warning signage, particularly in areas where the presence of signs is not perceived to match personal risk. Council has installed kangaroo warning signs in several high-risk areas, but anecdotal and observational evidence suggests they have minimal impact on driver behaviour without accompanying enforcement or speed management. Council is also hesitant to clutter roads with too many signs, with concerns for increasing driver distraction.



Photo: Kangaroo warning roadsign on Racecourse Road, Sunbury.

Speed limits

Reducing vehicle speed can be one of the most effective and immediate measures to lower the likelihood and severity of wildlife collisions. Research consistently shows that lower vehicle speeds increase driver reaction times and reduce both the impact force and mortality rates in the event of a strike. In areas of high wildlife activity -particularly where permanent kangaroo populations exist near roads - seasonal or location-specific speed reductions could make a meaningful difference to road safety and animal welfare.

However, there are currently no wildlife-related triggers embedded in Department of Transport's Speed Zoning Technical Guidelines¹ that support consideration of variable or seasonal speed limit reviews based on known wildlife roadstrike data. In practice, speed reductions are typically only considered in response to repeated human crashes or fatal traffic incidents - not animal collisions.

As a result, roads with a history of kangaroo strikes in Hume, such as sections of the Hume Highway, Mickleham Road, Sunbury Road, Somerton Road, and Lancefield Road, retain high-speed limits even in areas directly adjacent to kangaroo habitat. Council is unable to implement localised speed reductions without meeting the narrow criteria set by the Department of Transport, even when supported by data or community reports.

Translocation

Often raised as a perceived alternative, researched translocation programs have been shown to result in high mortality rates and elevated stress for relocated animals. Evidence suggests that kangaroos moved from their home ranges and often into habitat of other established mobs, have trouble adapting to unfamiliar environments and attempt to move back, with significant impacts on animal welfare and survival. For these reasons, translocation is not currently considered a humane or effective management option in most cases.

Wildlife crossing structures

More effective infrastructure solutions - such as overpasses and underpasses - are often prohibitively expensive for local government to consider without state or federal funding. These interventions also require significant land planning, engineering coordination, and ecological expertise to design and deliver effectively, which is rarely available at the local level. In many cases, urban development has meant that retroactive road treatments would not be possible.



Photo: Kangaroo remains on grassed area on Oaklands Road, Somerton.

¹ Speed Zoning Technical Guidelines, Department of Transport

Recommendations

To address the growing and complex issue of wildlife roadstrike in Victoria, Hume City Council recommends the following actions with the Inquiry's Terms of Reference.

1. DEECA to deliver on actions stated in the Living with Wildlife Action Plan

DEECA to provide an update and deliver on the actions stated in the Living with Wildlife Action Plan¹, published in 2018. As of April 2025, no updates or outcomes have been made publicly available via DEECA.

Relevant actions that will progress the reduction in wildlife roadstrikes in Hume include the following:

1.1 A range of communication methods will be used to encourage positive attitudes towards 'living with wildlife' and raise awareness of wildlife-human interaction issues that are common in Victoria.

Outcome: Improved public awareness of wildlife roadstrike, increased reporting accuracy, and community support for long-term solutions.

2.1 A review of the ATCW system will be conducted to gather evidence and stakeholder input into the limitations and strengths of the system. The review will examine the rigour and transparency of the ATCW processes, procedures, conditions, monitoring and compliance and will inform improvements to the system.

Outcome: Land managers to understand limitations and strengths of the Authority to Control Wildlife (ATCW) process to understand effectiveness and ethical outcomes prior to consideration, due to the sensitive nature of this option with community.

2.3 Review and monitor the effectiveness of the kangaroo management planning process to reduce impacts on kangaroos in Melbourne's growth areas.

Outcome: Reduced risk of land-locking, improved compliance, and consistent expectations across municipalities and land managers. Land managers understand when a KMP is required, who is responsible, and how implementation is monitored and reported. KMPs to be managed in a centralised system where implementation and compliance is tracked and mapped at a region or state level.

2.4 A Victorian Kangaroo Management Strategy will be developed to inform the sustainable management of Victoria's kangaroo populations and to guide future actions and decisions.

Outcome: A coordinated and proactive framework for planning and managing populations, communicating effective conservation messaging, land-use planning, infrastructure development and road treatments that prioritises both human safety and animal welfare.

3.2 DELWP will work with research institutions and wildlife experts to examine new methods of assessing damage caused by overabundant wildlife and options for humane control methods, including non-lethal methods.

Outcome: Development of improved, scientifically validated methods, broadening Victoria's wildlife management toolkit, supporting community expectations, and informing future responses.

¹ wildlife.vic.gov.au/our-wildlife/living-with-wildlife-action-plan

2. Establish centralised wildlife population and roadstrike database

Establish a centralised and standardised data platform, accessible for all relevant stakeholders to use and contribute to, enabling reporting, analysis, and responding to wildlife roadstrikes. This could be built into the Victorian Biodiversity Atlas¹ (VBA) for registered land managers to upload data related to wildlife roadstrike, as seen with NSW Government's use of BioNet².

Outcome: Improved forecasting, proactive mitigation, and more effective cross-agency coordination.

3. Support and lead wildlife and vehicle collision research and trials

State government agencies to lead support trials of evidence-based, context-specific mitigation measures such as road design changes, speed management, vegetation control, and wildlife crossings and other emerging technologies.

Learning from Transport for NSW's recent symposium on emerging technologies that aim to prevent wildlife-vehicle strikes; collaborate, support and conduct research and trials into technology innovations in Victoria.

- Using technology to reduce wildlife collisions Literature review and directions paper³ Transport for NSW, December 2024
- Next steps: Transport's response to the Future Directions Paper⁴ Transport for NSW, February 2025

Hume City has locations where supported research trials could take place, including Woodlands Historic Park.

Outcome: Collaborate with other agencies leading the way in research and trials, seeking evidence-backed solutions that can be scaled or adapted across similar landscapes.

4. DEECA to establish and lead regional Kangaroo Management Networks

DEECA to establish and lead regional Kangaroo Management Networks with representation from local councils, DTP, Parks Victoria, Registered Aboriginal Parties, and other key stakeholders.

 Hume City Council has recently collaborated with DEECA to establish a Kangaroo Land Managers Network (KLMN) for land managers in Greater Melbourne, with the inaugural meeting held on 13 March 2025.

Outcome: Drive continuous improvement, knowledge sharing and keep the issue in discussion across the state, encouraging regular operational communication between state and local agencies accountable for managing issues related to wildlife roadstrike.

¹ environment.vic.gov.au/biodiversity/victorian-biodiversity-atlas

² environment.nsw.gov.au/topics/animals-and-plants/biodiversity/nsw-bionet

 $[\]label{thm:continuous} 3\ transport.nsw.gov.au/system/files/media/documents/2025/Using-technology-to-reduce-wildlife-vehicle-collisions-Directions-Report.pdf$

⁴ transport.nsw.gov.au/system/files/media/documents/2025/Next-Steps-Using-technology-to-reduce-wildlife-vehicle-collisions.pdf

5. Development and integration of wildlife planning framework into urban development

Require that both state and local governments proactively consider wildlife and habitat connectivity at all stages of strategic and precinct-level planning. This includes preventing land-locking, identifying permanent wildlife habitat areas (e.g., reserves, waterways), and determining population carrying capacity of kangaroos for future ecosystem management.

Outcome: Improved coexistence between development and wildlife, reducing the risk of roadstrike and habitat degradation and supporting environmental stability.

6. Complete revision of *Wildlife Act 1975* and legislate clear land manager accountability for reducing risks and responding to incidents related to wildlife roadstrike

As of April 2025, no further updates or outcomes have been made publicly available regarding the review of the Wildlife Act 1975. The latest update in December 2021 is that the Expert Advisory Panel had delivered its report on the findings of their review to the Minister.

This review is an opportunity to clarify and legislate the responsibilities of land and road managers in managing wildlife roadstrike, moving away from ad-hoc and incidental responses. This must be supported by funding, resourcing and guidance, and consistent across land managers.

Outcome: Consistent, proactive practices across Victoria with accountability built into development and land-use processes.

7. Introduce wildlife roadstrike triggers for speed limit reviews

Update the Department of Transport's Speed Zoning Policy¹ to include wildlife roadstrike thresholds that trigger variable or seasonal speed limit adjustments in high-risk areas based on wildlife roadstrike data.

Outcome: Reduced vehicle-wildlife collisions and increased driver awareness and safety.

8. Support land managers to conduct ongoing ecological assessments and monitoring of species commonly impacted by wildlife roadstrike

Provide funding and tools for Councils and other land managers to monitor kangaroo populations and vegetation condition. Data should be used to inform long-term planning and ensure sustainable carrying capacities.

Outcome: Data-driven population management and early intervention in emerging hotspot areas.

9. Increase funding for wildlife rescue services

Increase support for existing organisations to establish of a paid, trained, and resourced workforce for wildlife rescue and rehabilitation. This includes insurance, equipment, training, and facilities in regions with high rates of wildlife incidents.

Outcome: Faster, safer responses to injured animals and reduced burden on under-resourced volunteers.

¹ content.vic.gov.au/sites/default/files/2024-07/Speed-Zoning-Policy

Conclusion

Wildlife roadstrike is not an isolated issue. It is a symptom of poor planning, reactive infrastructure, and systemic gaps in accountability that have not kept pace with the realities of growth and development in peri-urban Victoria.

Hume City Council sees this issue play out daily - in resident complaints, volunteer distress, roadside wildlife fatalities, and under-resourced and prohibited responses. The burden of expectation on local government is growing, but the authority and resources to act meaningfully are not.

Council strongly supports the intent of this Inquiry and welcomes the opportunity to work in partnership with State Government to address the issue at scale. We urge the Committee to consider the recommendations in this submission, which are grounded in data, lived experience, and practical insights from those at the frontline of this challenge.

Through coordinated action, legislative reform, targeted investment, and community education, we can reduce the harm caused by wildlife roadstrike and protect both people and animals in a rapidly changing landscape.



Photo: Kangaroo remains on grassed area on Oaklands Road, Somerton.

Appendices

More information

Eastern Grey Kangaroos

The Eastern Grey Kangaroo (*Macropus giganteus*) is a large, grazing marsupial native to eastern and southern Australia, including Victoria, where it is widespread across a variety of landscapes. It predominantly inhabits open forests, woodlands, and grasslands, often occupying areas that provide both grazing pasture and shelter.

Eastern Grey Kangaroos are primarily crepuscular, exhibiting peak activity at dawn and dusk, although they may also feed at night, particularly in cooler seasons or in areas of low human disturbance. Their diet consists mainly of native and introduced grasses, supplemented by herbs and occasionally shrubs.

Highly social, Eastern Grey Kangaroos form loose, open-membership groups called mobs, which can range from a few individuals to over a hundred depending on resource availability and environmental conditions. Social structures are fluid but can be influenced by factors such as kinship and dominance hierarchies. Their locomotion - bipedal hopping powered by large, muscular hind limbs and balanced by a strong tail - is highly energy efficient, enabling them to cover large distances in search of food and water.

Reproduction can occur year-round, but births often peak in summer and autumn, with females exhibiting embryonic diapause to maximise reproductive success in response to environmental conditions.

Eastern Grey Kangaroos play a vital ecological role by influencing plant community composition and maintaining grassland dynamics through selective grazing. However, their mobility patterns, preference for open grazing areas, and frequent use of roadside verges - where vegetation is often lush and regularly maintained - significantly increase their risk of vehicle collisions, particularly during periods of low light when they are most active. Understanding the ecology and behaviour of Eastern Grey Kangaroos is critical for developing effective strategies to mitigate wildlife roadstrike incidents and promote coexistence between human infrastructure and native wildlife.

Revision of the Wildlife Act 1975

The Independent Review of Victoria's Wildlife Act 1975 | Engage Victoria

'The Wildlife Act 1975 sets the rules around how people interact with wildlife in Victoria. It hasn't been reviewed since it became law more than 45 years ago. Since then, community values and expectations around wildlife have changed significantly.

In May 2020, the Minister for Energy, Environment and Climate Change announced a comprehensive review of the Wildlife Act. To inform the review, an independent expert advisory panel was appointed by the Minister.

The Panel consulted extensively in 2021 with key stakeholders, the community, Traditional Owners and Aboriginal Victorians. Over a thousand contributions of feedback were received.

The Victorian Government is committed to releasing the expert panel report into the Wildlife Act review and the Government Response.'

Victoria's Conservation Regulator

Conservation Regulator | vic.gov.au

'The Conservation Regulator is committed to protecting Victoria's biodiversity and wildlife and supporting safe and sustainable use of public land. We do this by:

- monitoring compliance with relevant laws, investigating alleged breaches of these laws and taking enforcement action where appropriate.
- · issuing licenses, permits and authorisations to manage and protect Victoria's forests and wildlife
- encouraging voluntary compliance through educating the community about the laws governing biodiversity, public land and wildlife in Victoria.'

Kangaroo Management Plan (KMP)

Guidance Note for managing kangaroos in Victoria's growth areas - DEECA

'A Kangaroo Management Plan (KMP) is developed to address risks associated with kangaroos where they are impacted (e.g. displacement, landlocked) by urban development.

A KMP should contain information about the population, context, objectives for kangaroo management, an analysis of management options and specified management actions required to manage risks to animal welfare and human safety.

In peri urban development areas, some situations require a planning permit for subdivision which may be issued with a condition requiring a KMP to be prepared prior to any development commencing.

The authorities responsible for issuing planning permits, (e.g., local councils) decide whether a KMP is required for the purpose of the Planning and Environment Act 1987.'

Authority to control Wildlife (ATCW)

Wildlife management and control authorisations | vic.gov.au

'An Authority to Control Wildlife (ATCW) is an authorisation issued under section 28A or section 28A(1A) of the Wildlife Act 1975 which allows a person to shoot, wilfully disturb or trap wildlife where it is damaging property, crops or other wildlife habitat or for the purposes of management, conservation or protection of wildlife. In Victoria, all wildlife is protected under the Wildlife Act. It is illegal to disturb or destroy wildlife without an appropriate authorisation, license or exemption.

Land managers must exhaust all practical non-lethal control options before applying for an ATCW for lethal control, which is a last resort. Some non-lethal control options may require an ATCW.'

Kangaroo Harvesting Program (KHP)

Kangaroo harvesting | Game Hunting | Department of Jobs, Skills, Industry and Regions

Hume City Council is in an exclusion zone where harvesting kangaroos cannot occur as per the Victoria Kangaroo Harvest Management Plan 2024-2028¹

'The Kangaroo Harvesting Program (KHP) began in Victoria on 1 October 2019 to enable the harvesting of Eastern and Western Grey kangaroos (grey kangaroos) in Victoria. The program provides an alternative to the existing Authority to Control Wildlife (ATCW) system for landholders wishing to control kangaroos on their property.

The KHP helps landholders reduce issues caused by kangaroos on-farm, makes use of the carcasses and provides an income for the trained harvesters. Problems faced by landholders include crop destruction, competition with livestock and damage to property such as fences.

The sustainability of kangaroo populations is protected by limiting the harvest using annual quotas. The harvesting quota is set, taking into account population estimates and the predicted ATCW numbers for the coming year.

Authorised harvesters take kangaroos in a sustainable manner at no cost to landholders. Suitable kangaroo carcasses are delivered to a processing centre where they are processed for food and other products, minimising wastage. Harvesters are accredited in firearm proficiency and game harvester skill sets. They must act in accordance with national standards. Landholders engage authorised harvesters directly and can request details of authorised harvesters in their area. Landholders wishing to use authorised harvesters do not need to apply for an ATCW.'

Map of DTP managed roads

Map of DTP managed roads - Transport Victoria



Case Study: Woodlands Historic Park

Woodlands Historic Park is a key example of the challenge in Hume City. Once situated within semi-rural landscapes, roads around these permanent conservation reserves are now receiving increased traffic due to being surrounded by urban development and its close proximity to Melbourne Airport.

Kangaroos within these reserves have become effectively land-locked, with few safe corridors for movement.

Woodlands Historic Park is managed by Parks Victoria and surrounded by roads managed by DTP. Council is managing increasing community concerns and requests for action by deferring them to accountable land managers based on the following:

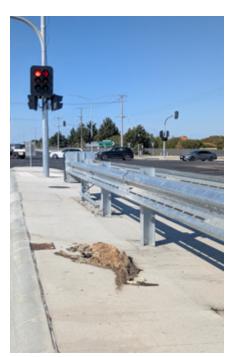
- · Large source population of kangaroos living within the park
- It is a hotspot for kangaroo roadstrike and decaying carcasses, driving community reports of concern
- 80kms/h speed limits on DTP managed roads Somerton Road, Oaklands Road and Mickleham Road
- Depleted vegetation and dry seasons leading to animals seeking fresh grass on roadside and median strips

Council have recently reached out to Parks Victoria and DTP to discuss collaborating on a site-specific approach, as Council are not accountable for assessment of road treatment, population management or other researched solutions.

A recent request to DTP regarding signage installation on the state-managed Somerton Road, along Woodlands Historic Park, a critical hotspot for wildlife roadstrikes, led to general support for signage installation, although DTP did not have the funding to pay for the signs or the installation. Council is hesitant to pay for infrastructure on land and roads that are managed by state government, as this sets an unsustainable precedence.

Parks Victoria is aware of over-population of kangaroos and is responding to incidents of injured wildlife life on surrounding roads and decreasing roadside vegetation where possible.







- 1. Left photo: One of at least 20 skeletons or carcasses of kangaroos on Oakland Road (24 April).
- 2. Centre photo: Decaying kangaroo carcass at Somerton/Mickleham Road intersection near traffic lights and pedestrian crossing (24 April).
- 3. Right photo: Decaying kangaroo carcass on roadside nearby Greenvale Recreation Reserve playground facilities (24 April).

For more information, contact our **Government Relations and Advocacy unit**



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