**Hearing date: 20 August 2025**

**Question taken on notice**

**Directed to:** Nicole de Haan, Operations Manager, Vets for Compassion

**Received date:** 29/08/2025

1. **p.37 Gaelle Broad**

**Question:** I am just interested, in your submission you mentioned AI detection in New South Wales. Are you able to expand on that any more or provide a bit of background?

**Nicole De HAAN:** I put links in the original submission, I think, so I can provide the studies to you. I printed off everything – probably not that one, though. So yes, I have got some stuff to leave for you. I think that is one of the only ones that I did not actually print off.

**Response:**

In preparing our submission, we explored a range of global studies and trials relating to AI-assisted wildlife detection systems. While the findings were somewhat inconsistent across the literature, we believe that, given the current crisis facing our native wildlife, these technologies are worth considering, particularly in high-risk areas.

AI detection appears to offer the most potential in areas with high vehicle traffic and slower-moving species. However, we noted that its effectiveness can vary significantly depending on the species. For example, fast-moving animals like macropods may not be reliably detected in time to prevent collisions, limiting the usefulness of AI detection in rural areas or locations where such species are prevalent. In contrast, urban areas or known wildlife corridors (such as Wellington Road) could benefit more meaningfully from these systems.

Relevant studies and references considered:

* [Christine Connelly Submission – Parliament of Victoria (Link)](https://www.parliament.vic.gov.au/4a3da0/contentassets/afeb63f069304692a6c85e9c6bd39bb8/166.-christine-connelly_redacted.pdf?utm_source=chatgpt.com)
* [Virtual Fencing as a Wildlife-Vehicle Collision Mitigation Strategy – USC Research (Link)](https://research.usc.edu.au/esploro/outputs/journalArticle/Virtual-fencing-as-a-wildlife-vehicle-collision/99571606102621?utm_source=chatgpt.com)
* [AI Technology and Animal Detection Systems – PMC Article (Link)](https://pmc.ncbi.nlm.nih.gov/articles/PMC11171368/?utm_source=chatgpt.com)

While the study we referenced in our submission, based in New South Wales, is still in its trial phase, official results have not yet been published. However, in the lead-up to the Inquiry, one of our local NSW veterinarians reached out to Transport for NSW and was able to obtain some informal feedback via a mutual colleague. It was noted that the team involved in the trial were feeling "positive about what they had found in such a short period of time," and "thought it could be more successful for some species than others."

As the trial is still in its early stages, they were not prepared to share detailed findings or data at this point.

**What We Concluded - Reasons for Inconsistent Effectiveness:**

* **Site-Specific Factors:**
The effectiveness of virtual fencing can be heavily influenced by variables such as road curvature, the volume and type of surrounding noise, and how the system is installed. These factors can significantly impact the detection system’s performance.
* **Species-Specific Responses:**
Wildlife species respond differently to virtual fencing. Some are deterred by the alerts, while others show little or no behavioural change, making species-specific implementation necessary.
* **Insufficient Evidence:**
A key takeaway from our review is that there is currently not enough strong or consistent evidence to justify the widespread rollout of virtual fencing as a sole mitigation measure. However, we believe it remains a promising tool and should be considered as part of a broader strategy for reducing wildlife-vehicle collisions.

We continue to monitor developments in this field and are open to trialling or supporting further research into AI-based wildlife protection systems as part of a broader mitigation strategy.