

## Feral horses – Senate Hearing

### Impacts of feral horses in Eastern Australian Water systems

The Australian Alps serve as the upper catchments of the Snowy and Murray Rivers and are a significant source of their surface flows. Accumulated winter snow and ice in this alpine region produces a slow melting supply through spring and summer which when combined with the water storage and release from the porous soils and vegetation in sphagnum moss bogs and associated ferns, creates a natural water filtering system with continuous flow of pristine water. These unique systems also sustain several rare and threatened plant and animal species and were included in the listing of this [threatened ecological community](#) in 2009.

Climate change has been identified as the most [insidious threat](#) affecting this and other delicate alpine systems. The impacts include a reduction in winter low pressure systems producing less snow over our alpine regions, causing a reduction to this [melting cycle](#) and seasonal run-off. However, the natural storage and filtering capacity of sphagnum moss bogs is further impacted by the grazing patterns and movements of feral horses, which have historically shown a preference to [aquatic](#) landscapes.

The movement and grazing of feral horses reduce ground cover vegetation and their trampling also causes damage to riverbanks and streams. When this occurs in areas of sphagnum moss, the riparian [damage](#) results in altered drainage, which dries out the peat soil and reduces their water storage ability, making these areas more vulnerable to erosion and more susceptible to fire.

Increased erosion from trampling and grazing also increase water turbidity, which can greatly affect the water quality at localised sites and downstream. In some cases, horse affected waterways peaked at 50 times the [national turbidity guideline](#), with summer seasonal averages seen at 8 times the national guideline.

These cumulative effects, when coupled with climate change will cause irreversible damage to these important waterways, and threaten the extinction of our native flora and fauna. For these reasons, management and control of feral horses was listed as one of the highest priorities in the recovery plan for this [threatened ecological community](#).

#### References:

Beever, E. A., & Brussard, P. F. (2000). Examining ecological consequences of feral horse grazing using exclosures. *Western North American Naturalist*, 60(3).

Davies, K. W., Collins, G., & Boyd, C. S. (2014). Effects of feral free-roaming horses on semi-arid rangeland ecosystems: An example from the sagebrush steppe. *Ecosphere*, 5(10).  
<https://doi.org/10.1890/ES14-00171.1>

Gooch, A. M. J., Petersen, S. L., Collins, G. H., Smith, T. S., McMillan, B. R., & Eggett, D. L. (2017). The impact of feral horses on pronghorn behavior at water sources. *Journal of Arid Environments*, 138.  
<https://doi.org/10.1016/j.jaridenv.2016.11.012>

Scanes, P. R., McSorley, A., & Dickson, A. (2021). Feral horses (*Equus caballus*) increase suspended

sediment in subalpine streams. *Marine and Freshwater Research*, 72(9).  
<https://doi.org/10.1071/MF20353>