

Associate Professor Kristopher Hughes

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Peer Assessment of '*Equine Health Assessment Report March 2015*' authored by Dr Nicholas Kannegieter.

Introduction

A peer-review of '*Equine Health Assessment Report March 2015*' was undertaken for Hansen Bailey Environmental Consultants. The report represents a revised assessment of potential impacts of the Drayton South Coal Project (the Project) on equine health on adjacent properties. Specific assessment was made in the report to consider whether the predicted air quality, noise and vibration impacts from the Project are likely to be detrimental to the health of horses on neighbouring properties.

Credentials

Bachelor of Veterinary Science (Hons 1), University of Sydney (1995). Fellowship, Australian and New Zealand College of Veterinary Scientists (FANZCVSc) in equine medicine (2004). Diplomate, European College of Equine Internal Medicine (ECEIM) (2007). Registered specialist (equine internal medicine) in NSW.

Assessment of '*Equine Health Assessment Report March 2015*'

Full opportunity was provided to peer review the report, from a scientific perspective. Peer review included both the final report ('*Equine Health Assessment Report March 2015*') and the previous version ('*Equine Health Assessment Report July 2012*'). This review process was conducted in an impartial and independent manner, with due consideration of the available scientific evidence and understanding of possible effects of the Project on the health of horses on adjacent properties. The report provides a comprehensive and considered review of the potential effects of dust/air quality, noise, vibration and light on the health of horses, and includes scientific data and incorporation of information on precedents/comparative situations. The assessments and conclusions made in the report that, in terms of dust, noise, vibration and light, there will be no adverse effects on horse health are justified, based on the available scientific data, modelling performed and consideration of comparative precedents of air quality, noise and vibration within the Hunter Valley and other equine breeding regions internationally. I concur with the findings and interpretation of available scientific data made in this report. As outlined in the report, monitoring of dust concentrations (air quality) and blasting noise/vibration levels/effects would be useful components of monitoring programmes for the Project to ensure horse health impacts are not likely on adjacent properties.

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Equine medicine Consultants



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TO WHOM IT MAY CONCERN

I am an equine specialist veterinarian of thirty-four years experience. Between 1990 and 2012 I was a partner at Satur Veterinary Clinic at Scone in the Upper Hunter Valley of NSW. During that time, 95% of my work was with horses, mostly Thoroughbreds and involved ambulatory work (visiting many Thoroughbred Farms) and referral cases at Satur Veterinary Clinic. My specialty is equine medicine and I have a particular interest and post-graduate qualifications relating to equine respiratory health.

In December 2014 I was asked by Hansen Bailey Environmental Consultants to undertake a peer review of "*Equine Health Impact Assessment*" relating to the Drayton South Coal Project, prepared in 2012 by Dr Nicholas Kannegieter. More recently, I have been given the opportunity to peer review the revised document prepared in March 2015.

Dr Kannegieter's literature review of the scientific literature relating to equine respiratory health and the potential effects of dusts, noise, vibration and light on horses has been comprehensive. It is also relevant and meaningful to compare the amount of dust, noise and vibration that horses are known to be exposed to during the various stages of their lives and to compare that information with predicted levels for the Project (based on measurements associated with current mining operations in the region).

The conclusion reached by Dr Kannegieter, that the Project should result in no additional health or production problems for any of the horses or foals on these studs, is in my opinion valid.

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