
Horses, Culture and Ethics: Wildlife Regulation in Kosciuszko National Park

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Wildlife management frequently involves complex layers of conservation, protection and killing of animals, which balance ecological necessity against ethical and socio-cultural considerations. Using a case study approach, this article evaluates the NSW government's decision to reverse a planned cull of wild horses, on the basis of cultural reasons, and the controversy that has since followed that decision. The discussion assesses how decision-makers address challenges in reconciling differing stakeholder perspectives, arguing that a singular focus on cultural values is flawed. In Kosciuszko National Park, this approach side-steps the tension between environmental protection and animal ethics, avoiding an important part of the regulatory debate. The experience of the United States, where wild horses and burros have been protected for their cultural value since 1971, indicates that decision-makers need to be vigilant when engaging with stakeholders, especially in the use of lethal measures. In the latter case, regulators need to be creative, not only incorporating stakeholder engagement, but also allocating sufficient funding to advance research and investment in technologies that provide alternative choices to killing.

I. INTRODUCTION

In 2016, the government of New South Wales (NSW) commenced a review of wild horse management in Kosciuszko National Park (KNP).¹ For the previous eight years, provisions in the 2008 *Kosciuszko National Park Horse Management Plan (2008 Horse Plan)* had seen populations of wild horses controlled by non-lethal methods such as mustering and removal.² The 2016 review concluded that these practices had not reduced population numbers, nor had they mitigated environmental harm attributed to horses.³ Accordingly, a new plan, the *Kosciuszko National Park Draft Wild Horse Management Plan 2016 (2016 Draft Horse Plan)*, was proposed that aimed at reducing wild horse populations to approximately 200 individuals within 20 years.⁴ The plan represented a traditional view of wildlife management, where lethal measures would be used “to keep [wild animals] ... in balance with their habitat and avoid conflicts with other uses of the land”.⁵ However, this form of

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¹ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, a Companion Document to the 2016 *Kosciuszko National Park Draft Wild Horse Management Plan (2016)* <<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-2008-horse-management-plan-wild-horse-management-program-review-160272.pdf>>.

² NSW National Parks and Wildlife Service, Department of Environment and Climate Change NSW, *Kosciuszko National Park Horse Management Plan (2008) 1* <<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-horse-management-plan-080254.pdf>>.

³ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 1, 5.

⁴ Office of Environment and Heritage, *Kosciuszko National Park Draft Wild Horse Management Plan (2016) 23, 25* <<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-draft-wild-horse-management-plan-160271.pdf>>.

⁵ Susan M Sphectman, “The ‘Bambi Syndrome’: How NEPA’S Public Participation in Wildlife Management Is Hurting the Environment” (1977–1978) 8 *Environmental Law* 611, 616.

management, which encompasses an “entanglement of harm and care”,⁶ has increasingly been called to account.⁷ The *2016 Draft Horse Plan* was no exception, proving controversial, polarising debate and discussion.⁸

In the midst of the debate, John Barilaro, the then deputy premier and Minister for Regional NSW, announced on 21 May, 2018, that he planned to protect the cultural heritage of wild horses.⁹ Just two days later, he introduced the *Kosciuszko Wild Horse Heritage Bill 2018 (Wild Horse Bill 2018)* into parliament and on 6 June 2018, the *Kosciuszko Wild Horse Heritage Act 2018 (NSW) (Wild Horse Act)* became law.¹⁰ The announcement itself, and the speed of the legislation took stakeholders by surprise, unleashing critiques, confusion and division.¹¹ Those who favoured the cull expressed concern at the impacts of wild horses on vegetation, waterways, and livestock; whereas those who were against the cull claimed a victory of sorts, citing insufficient engagement with animal ethics and the need to preserve the cultural value of wild horses.¹² The anti-cull group also argued that ecologists had over-estimated the extent of damage attributed to the horses.¹³ The controversy continues, at the time of writing including no fewer than three attempts to repeal the *Wild Horse Act* by the introduction of private members bills into the NSW Parliament.¹⁴

When the *Wild Horse Act* was passed, the legislation was widely seen as a capitulation to business interests, whose political influence had secured the continued presence of horses in KNP for tourism purposes.¹⁵ These accusations were not dispelled by the second reading speech where the Minister praised tourism values in KNP and the associated role of wild horses.¹⁶ Given that the *Wild Horse Act*

⁶ Krithika Srinivasan, “Caring for the Collective: Biopower and Agential Subjectification in Wildlife Conservation” (2014) 32 *Environment and Planning D: Society and Space* 501, 509.

⁷ Generally, Dominique Thiriet, “Flying Fox Conservation Laws, Policies and Practices in Australia – A Case Study in Conserving Unpopular Species” (2010) 13(2) *The Australasian Journal of Natural Resources Law and Policy* 161; Daniel Ramp and Marc Bekoff, “Compassion as a Practical and Evolved Ethic for Conservation” (2015) 65(3) *Bioscience* 323.

⁸ For example, Ursula Malone and Amanda Hoh, “Kosciuszko National Park Brumbies Cull Protested against Outside NSW Parliament in Sydney”, *ABC News*, 2 August 2016 <<https://www.abc.net.au/news/2016-08-02/protest-outside-nsw-parliament-against-kosciuszko-brumbies-cull/7681444>>; Kerry Staight, “Kosciuszko: Minister Vows to Stop Snowy Mountain Brumbies Doing More Damage to National Park”, *ABC News*, 7 August 2016 <<https://www.abc.net.au/news/2016-08-07/kosciuszko-minister-vows-to-stop-brumbies-damaging-national-park/7695178>>; Don Driscoll, “The Ethical and Cultural Case for Culling Australia’s Mountain Horses”, *The Conversation*, 6 September 2016 <<https://theconversation.com/the-ethical-and-cultural-case-for-culling-australias-mountain-horses-64602>>; Michael Condon and Joshua Becker, “NSW Government May Consider Reversing Wild Brumby Cull Targets”, *ABC Rural News*, 30 June 2017 <<https://www.abc.net.au/news/rural/2017-06-30/nsw-government-looks-to-cut-will-brumby-cull-targets/8652478>>.

⁹ NSW Government, “Protecting Kosciuszko’s Wild Horses from Culling” (News Release, 21 May 2018) <<https://www.nsw.gov.au/news-and-events/news/protecting-kosciuszko-wild-horses-from-culling/>>.

¹⁰ *Kosciuszko Wild Horse Heritage Act 2018* <http://www.austlii.edu.au/cgi-bin/viewdb/au/legis/nsw/consol_act/kwhha2018329/>.

¹¹ For example, Joshua Becker and Isabell Pittaway, “Brumby Cull Backflip Divides Communities across New South Wales and Victoria”, *ABC Rural*, 22 May 2018 <<https://www.abc.net.au/news/2018-05-22/nsw-brumby-cull-backflip-splits-community/9787968>>; Peter Hannam, “Ridiculous: Wild Horse Plan Strains Greens, Fuels Liberal ‘Disquiet’”, *The Sydney Morning Herald*, 25 May 2018 <<https://www.smh.com.au/environment/conservation/ridiculous-wild-horse-plan-strains-greens-fuels-liberal-disquiet-20180525-p4zhfx.html>>.

¹² Becker and Pittaway, n 11; Andy Park, “Controversial Brumby Protections a ‘Skilful Use of Democracy’ Says Lobbyist”, *ABC News*, 4 July 2018 <<https://www.abc.net.au/news/2018-07-04/nsw-brumby-protections-a-skilful-use-of-democracy-lobbyist/9931110?site=southeastnsw>>.

¹³ Becker and Pittaway, n 11; Park, n 12.

¹⁴ Discussion in Part III C of this article; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, private members bill, 25 October, 2018, introduced by Cate Faehrmann, Greens (lapsed) <<https://www.parliament.nsw.gov.au/bills/Pages/bill-details.aspx?pk=3601>>; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, private members bill, 18 June 2019, introduced by Cate Faehrmann, Greens (lapsed) <<https://www.parliament.nsw.gov.au/bills/Pages/bill-details.aspx?pk=3651>>; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, private members bill, 8 Aug 2019, introduced by Penny Sharpe, Australian Labor Party (lapsed) <<https://www.parliament.nsw.gov.au/bills/Pages/Profiles/repeal-of-kosciuszko-wild-horse-heritage-legislation-bill-2019.aspx>>; Jen Hunt and Josh Becker, “Brumby ‘backflip’ denied by NSW Deputy Premier John Barilaro”, *ABC News*, Press discussion, 5 March 2019 <<https://www.abc.net.au/news/2019-03-05/brumby-backflip-claims-rejected-by-barilaro/10872306>>.

¹⁵ Park, n 12.

¹⁶ John Barilaro, *Kosciuszko Wild Horse Heritage Bill 2018*, 23 May 2018, Proof, 25 <<https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#docid/HANSARD-1323879322-102131>>.

was enacted in the face of the government's two-year promotion of the *2016 Draft Horse Plan*, the legislation represented something of a conundrum. Although it stopped the proposed cull, thus placating animal interest groups, the legislation was neither designed to pacify these groups, nor intended to engage more broadly with animal ethics. Rather, by focusing on cultural values, the *Wild Horse Act* side-stepped animal ethics, avoiding engagement with an important and controversial matter in wildlife management that centres on whether lethal measures can be justified.

The regulation of wild horses in KNP is controversial and is likely to remain so. Alice Menyhart, writing in an earlier edition of the *Environment and Planning Law Journal* has examined the limited feasibility of Commonwealth government intervention on the basis that KNP is a matter of national environmental significance.¹⁷ The purpose of this article is to contribute to the debate, by evaluating the status quo from a broader, ethical perspective. As such, the discussion focuses on the enactment of the *Wild Horse Act* and surrounding events, to illustrate challenges that decision-makers face as they attempt to reconcile differing stakeholder perspectives. The discussion also makes suggestions for improvements, drawing on the experience of the United States (US)¹⁸ where wild horses and burros have been protected for their cultural value since 1971.¹⁹ In that jurisdiction, the use of non-lethal measures has led to increased population numbers, a development which is consistently challenging to control. It is argued that regulators in New South Wales need to engage more deeply with animal ethics in wildlife management, rising to the demands of balancing ecological necessity against ethical considerations. This challenge is unlikely to be met by wholesale culling, or by regulation which appears to be politically palatable, but which also avoids meaningful engagement with the ethics of killing.

The article commences by examining human-horse interactions in KNP, before moving to an evaluation of management approaches and the *Wild Horse Act*. The discussion then analyses these developments in the context of competing stakeholder values, arguing that the *Wild Horse Act* has politicised wild horse management in KNP, adding yet another layer of complexity to the regulatory debate. Comparisons with the US experience lead to the conclusion that there, as in New South Wales, regulators need to consider innovative and adaptive approaches. These include providing adequate funding for research into alternative technologies, as well as engaging more meaningfully with animal protection organisations and the public.

Prior to commencing the discussion, a word or two is warranted about the spelling of "Kosciuszko" versus "Kosciusko". The article uses the spelling "Kosciuszko" in accordance with a change of name prescribed by the Geographical Names Board of New South Wales on 18 April 1997, which aimed at consistency with the original Polish word.²⁰ However, some legislation and other sources that predate 1997, use the older spelling, "Kosciusko", and where that has occurred, the older spelling is used.

II. HORSES AND THE KOSCIUSZKO REGION

The Australian Alpine region (the Alps) encompasses 1.6 million hectares that incorporate eleven national parks and nature reserves, including KNP and the famed Snowy Mountains.²¹ The Alps were gazetted as part of Australia's national heritage in 2008, stretching across the eastern part of Australia, from the

¹⁷ Alice Menyhart, "Wild Horses and the Limitations of Commonwealth Environmental Decision-Making" (2019) 36 *Environment and Planning Law Journal* 142.

¹⁸ James Kirkwood, "Tackling Conservation/Welfare Conflicts in the Management of Wild Animals" (2002) 8(1) *Pacific Conservation Biology* 36, 38; Werner Scholtz, "Animal Culling: A Sustainable Approach or Anthropocentric Atrocity?: Issues of Biodiversity and Custodial Sovereignty" (2005) 2(2) *Macquarie Journal of International and Comparative Environmental Law* 9, 26.

¹⁹ *Wild Horse and Burro Act of 1971*, Pub L No 92-195 <https://www.blm.gov/sites/blm.gov/files/programs_wildhorse_history_doc1.pdf>.

²⁰ Geographical Names Board of New South Wales, extract 79835, 18 April 1997 <http://www.gnb.nsw.gov.au/place_naming/placename_search/extract?id=KWwGjzsETR>.

²¹ Department of the Environment and Energy, Factsheet, *National Heritage Places – Australian Alps National Parks and Reserves* <<http://www.environment.gov.au/heritage/places/national/australia-alps>>.

State of New South Wales, to the Australian Capital Territory and further south to Victoria.²² The Alps are environmentally and culturally significant. In New South Wales, they comprise unique ecosystems, flora and fauna, including bogs, fens, snowgums, silver snow daisies, corroboree frogs, tiger quolls, koalas and broad-toothed rats.²³ The Alps are also renowned for their natural and rugged beauty, which support tourism and recreational activities.²⁴ In addition, the Alps provide strong historical and cultural links with Australia's colonial past, evident in huts and stock routes found throughout the landscape.²⁵ Against this backdrop, horses have been associated with the alpine region from the early 19th century, having been used as farm animals and also to convey settlers.²⁶ By 1823, in addition to horses, the NSW Alps also supported domesticated animals, such as sheep and cattle, with summer grazing of livestock being particularly widespread.²⁷

The presence of wild horses was noted as early as 1804 and was presumed to comprise horses who had escaped or had been abandoned.²⁸ Throughout the later decades of the 19th century abandoning horses became increasingly common, as mechanisation reduced the number of draught horses used in agricultural production.²⁹ Wild herds remained largely unmanaged, so that by 1850 Australia-wide populations reached close to 160,000.³⁰ In 2015, this figure had risen to an estimated 400,000, most of whom were found in cattle-producing regions in the northern part of the continent.³¹ Estimates of wild horses in the Kosciuszko region range from 2,791 to 6,000 individuals.³²

At present, apart from horses, sheep and cattle, the Alps are home to introduced wildlife such as deer, trout, pigs, salmon and redfin.³³ To the public, the status of these animals varies. For some, the damage caused by introduced fish species is a significant ecological problem; yet for others introduced fish provide enjoyment through recreational angling.³⁴ Wild horses engender similar views. As the 2006

²² Commonwealth of Australia, *Environment Protection and Biodiversity Conservation Act 1999, Inclusion of a Place in the National Heritage List*, Gazette, No S237, 7 November 2008 <<http://www.environment.gov.au/system/files/pages/5049d4dd-060e-40fb-8dbf-eea5496cd18d/files/10589104.pdf>>.

²³ Office of the Environment and Heritage, Factsheet, *Australian Alps – Biodiversity* <<https://www.environment.nsw.gov.au/bioregions/AustralianAlps-Biodiversity.htm>>.

²⁴ Department of the Environment and Energy, Factsheet, *National Heritage Places – Australian Alps National Parks and Reserves*, n 21.

²⁵ Godden M Logan, *Kosciuszko National Park Huts Conservation Strategy*, Report prepared for NSW NPWS (2005) 114–115 <<https://www.environment.nsw.gov.au/resources/parks/050404KNPHutsConservationStrategyFinal.pdf>>; The Australian Government, Factsheet, *National Heritage List, The Alps* (undated) <<https://www.environment.gov.au/system/files/pages/5049d4dd-060e-40fb-8dbf-eea5496cd18d/files/australian-alps-values.pdf>>.

²⁶ National Cultural Heritage Values Assessment and Conflicting Values Report, *The Wild Horse Population Kosciuszko National Park*, prepared for NSW National Parks and Wildlife Service (2015) 9, 10 <<https://www.environment.nsw.gov.au/resources/protectsnowies/knp-assessment-conflicting-values-2804.pdf>>.

²⁷ National Cultural Heritage Values Assessment and Conflicting Values Report, *The Wild Horse Population Kosciuszko National Park*, n 26, 9, 10.

²⁸ Department of Sustainability, Environment, Water, Population and Communities, Fact sheet, *Feral Horse (Equus caballus) And Feral Donkey (Equus Asinus)* (2011) <<http://www.environment.gov.au/biodiversity/invasive-species/publications/factsheet-feral-horse-equus-caballus-and-feral-donkey-equus-asinus>>.

²⁹ Department of Sustainability, Environment, Water, Population and Communities, n 28; Dawson, *The Population Ecology of Feral Horses in the Australian Alps Management Summary*, prepared for the Australian Alps Liaison Committee, April 2005, 2; FML Thompson, “The Second Agricultural Revolution, 1815–1880” (1968) 21(1) *The Economic History Review* 62, 65.

³⁰ Department of Sustainability, Environment, Water, Population and Communities, n 28. Dawson, n 29, 2.

³¹ Department of Sustainability, Environment, Water, Population and Communities, n 28.

³² Invasive Species Council, “FOI Reveals Feral Horse Numbers Skyrocketing in Kosciuszko National Park”, 17 April 2019 <<https://invasives.org.au/media-releases/feral-horse-foi/>>; Department of the Environment and Energy, Factsheet, *National Heritage Places – Australian Alps National Parks and Reserves*, n 21.

³³ Department of the Environment and Energy, Factsheet, *National Heritage Places – Australian Alps National Parks and Reserves*, n 21.

³⁴ 2006 Plan of Management Kosciuszko National Park, as amended in 2010 and 2014, New South Wales National Parks and Wildlife Service, 190 <<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-plans-of-management/kosciuszko-national-park-plan-of-management-140319.pdf>>.

Plan of Management Kosciuszko National Park (2006 Management Plan) notes, a portion of the public consider that wild horses detract from their enjoyment of the park, while for others, “encounters [with wild horses adds] to the richness of their experience”.³⁵ In an analogous vein, horse riding in KNP is also a popular activity, along with bushwalking, fishing, cycling, vehicle-based sightseeing and snow sports.³⁶

From a cultural perspective, wild horses were immortalised in the 1890 Banjo Patterson poem, “The Man from Snowy River”.³⁷ The poem epitomised cultural ties between wild horses and Australian colonial society, contributing to the now-disputed depiction of brumbies as heroic figures, including as war horses fighting alongside Australians during the Boer War and World War I.³⁸

However, positive views of wild horses have never been universally accepted and the presence of wild horses in the Alps has divided opinion from at least the mid-19th century. In 1843, one commentator described wild horses and wild cattle as pests, with a recommendation that they be lassoed, crippled and “annihilated”.³⁹ Agricultural landholders were especially critical of wild horses, ranking their damage in the same category as harm attributed to dingoes.⁴⁰ Elsewhere, reports of environmental damage ascribed to wild horses started surfacing from the 1860s.⁴¹ By the 1890s, apprehension with the impacts of wild horses formed part of broader aims designed to manage Australia’s Alpine regions to limit damage caused by cattle, sheep and horses.⁴² Notwithstanding these concerns, officials largely ignored wild horses, instead focusing on damage to livestock and pasture caused by foxes and rabbits.⁴³

Throughout these times, wild horses also had a limited commercial value. “Brumby Running”, for example, which involves capturing and selling wild horses, was a popular and profitable activity well into the 1920s.⁴⁴ In New South Wales, however, it was not encouraged after 1944 when the *Kosciuszko State Park Act 1944* (NSW) designated the region as a park.⁴⁵ Concerns with animal wellbeing saw brumby running formally banned in 1982.⁴⁶ This type of ad hoc management waned from the latter part of the 20th century, as regulators aimed for more cooperative and coordinated management of the Alps.

III. MANAGEMENT PLANS AND BACK-FLIPS

Since the 1980s, management of the Alps has comprised a combination of cooperative initiatives as well as individual State and Territory regulation. The overarching goal has been to aim for consistency and collaboration.

³⁵ 2006 Plan of Management Kosciuszko National Park, as amended in 2010 and 2014, n 34, 50, 69, 190.

³⁶ 2006 Plan of Management Kosciuszko National Park, as amended in 2010 and 2014, n 34, 2.

³⁷ The Banjo, “The Man from Snowy River”, *The Bulletin*, 26 April 1890, 13, <<https://trove.nla.gov.au/newspaper/article/170833300?searchTerm=the%20man%20from%20snowy%20river%22%2C%20%20%2C%20the%20bulletin&searchLimits=l-australian=y>>.

³⁸ This perspective is now being questioned, National Cultural Heritage Values Assessment and Conflicting Values Report, The Wild Horse Population Kosciuszko National Park, n 26, 14.

³⁹ P Cunningham, “How to Turn the Wild Herds of Australia to Account”, *The Sydney Morning Herald*, 20 October 1843, 4.

⁴⁰ J Pottie, “The Horse Question”, *Queanbeyan Age* (from the Town and Country Journal), 20 January 1870, 1.

⁴¹ Dawson, n 29, 2.

⁴² Roger Good, for the Australian Alps Liaison Committee, *A Guide to Ecological Rehabilitation in the Australian Alps*, 2006, 70 <<https://theaustralianalps.files.wordpress.com/2013/12/rehabilitation06.pdf>>; Graeme L Worboys, “A Plan to Protect Kosciuszko’s Water Catchments”, *Nature NSW*, 2016 Summer, 10, 11.

⁴³ Richard Symanski, “Contested Realities: Feral Horses in Outback Australia” (1994) 84(2) *Annals of the Association of American Geographers* 251, 255.

⁴⁴ National Cultural Heritage Values Assessment and Conflicting Values Report, The Wild Horse Population Kosciuszko National Park, n 26, 9.

⁴⁵ *Kosciuszko State Park Act 1944* (NSW) <http://www.austlii.edu.au/cgi-bin/viewdb/au/legis/nsw/num_act/kspa1944n14264/>.

⁴⁶ National Cultural Heritage Values Assessment and Conflicting Values Report, The Wild Horse Population Kosciuszko National Park, n 26, 9.

A. Cooperative Management

From 1986 the Alps have been managed cooperatively, by the governments of New South Wales, Victoria, the Australian Capital Territory and the Commonwealth.⁴⁷ A memorandum of understanding signed among the parties (Alps MOU), envisaged that agencies would work together to formulate and implement best practice principles.⁴⁸ It was anticipated that co-operation would lead to sustainable use and protection of natural and cultural values ascribed to the Alps.⁴⁹ To assist, para 5.2 of the Alps MOU establishes the Australian Alps Liaison Committee (Alps Committee), which is charged with facilitating cooperative management by administering the Alps as a single bioregion.⁵⁰ The Alps Committee maintains a website that disseminates news, reports, publications and research.⁵¹

The Alps MOU also creates the Australian Alps National Parks Co-operative Management Program Vision Statement, which calls for the drafting of strategic plans to achieve the objectives of the MOU.⁵² The latest strategic plan covers the years 2016–2018 and has been prepared in the form of a two-page policy document which underscores the importance of cooperative management.⁵³ A priority issue deriving from this plan is to curtail the impacts of invasive species, especially ungulates such as deer and wild horses.⁵⁴ For many years this was consistent with key aims of NSW regulation.

B. NSW Management

At the NSW level, the National Parks and Wildlife Service commenced formal control of wild horses in the 1970s by licensing brumby running, until, as just discussed, it was banned in 1982.⁵⁵ During this time, wild horse populations continued to grow, prompting the National Parks and Wildlife Service to adopt an initial management plan for the park in 2003,⁵⁶ followed by a more comprehensive plan in 2006.⁵⁷ That plan, the *2006 Management Plan*, is still currently in force. Chapter 11 of the plan, targets introduced animals and specifically calls for the exclusion of horses from nominated areas, as well as the preparation of a horse management plan for the entire KNP.⁵⁸ The horse management plan was adopted two years later as the *2008 Horse Plan*.⁵⁹ The 2008 plan acknowledges the need to reduce horse numbers, both for reasons of public safety and also to protect the “cultural and heritage values of the

⁴⁷ Australian Alps National Parks, *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, July 2016 <https://theaustralionalps.files.wordpress.com/2016/07/aanpmou_2016_18_signed.pdf>. The MOU was signed in 1986 and revised in 1989, 1996, 1998 and 2003.

⁴⁸ Australian Alps National Parks, *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, paras 2.6 and 3.2.

⁴⁹ Australian Alps National Parks, n 48, paras 2.6 and 3.2.

⁵⁰ Australian Alps National Park, Factsheet <<https://theaustralionalps.wordpress.com/>>; *Memorandum of Understanding in Relation to the Co-operative Management of the Australian Alps National Parks*, n 47.

⁵¹ The Australian Alps Liaison Committee <<https://theaustralionalps.wordpress.com/>>.

⁵² *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, paras 6.1–6.6.

⁵³ Australian Alps Liaison Committee, *Strategic Plan 2016–2018, Australian Alps National Parks Co-operative Management Program* <<https://theaustralionalps.files.wordpress.com/2016/05/strategic-plan-2016-2018-for-the-australian-alps-national-parks-co-operative-management-program.pdf>>.

⁵⁴ *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, 2.

⁵⁵ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 1.

⁵⁶ National Parks and Wildlife Service, *Horse Management Plan for the Alpine Area of Kosciuszko National Park*, January 2003–January 2005 <<https://www.environment.nsw.gov.au/resources/parks/kosciuszkoWildHorseManagementPlan.pdf>>.

⁵⁷ *Plan of Management Kosciuszko National Park*, 2006, as amended in 2010 and 2014, n 32, 190.

⁵⁸ *Plan of Management Kosciuszko National Park*, 2006, as amended in 2010 and 2014, n 32, Pt 11.4, Management objectives 9 and 10 in Pt 11.4.1.

⁵⁹ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 1.

park”.⁶⁰ Although those values are not defined, the *2008 Horse Plan* notes that KNP contains unique geophysical features, unusual biodiversity and also encompasses “cultural remains and histories”; thus clearly recognising a blend of natural and heritage values.⁶¹

In similarity with the *2006 Management Plan*, the *2008 Horse Plan* identifies mixed visitor perspectives on wild horses, with some regarding horses as a drawback and others regarding them as an enriching experience.⁶² The *2008 Horse Plan* also appears to downplay the horses’ cultural value, dismissing this perspective as overly-romanticised.⁶³ The plan concludes that reducing populations of wild horses in the KNP would not diminish their cultural validity:

There is no doubt that horses have played an important part in the history of Australia’s development as they have been involved in exploration, carting of supplies, forestry, mining, racing, transportation, grazing and droving, and as part of the mounted police and Australian Light Horse Regiments. However, elsewhere in Australia the role of the horse is commemorated in literature, memorials and in museums. The wild horse population of Australia is the highest in the world therefore the cultural values attributed to this species are in no way threatened by the proposal to reduce horse numbers in Kosciuszko National Park.⁶⁴

However, while the *2008 Horse Plan* did not consider that KNP was an appropriate place to preserve the cultural value of wild horses, it also rejected onsite culling and aerial helicopter shooting, replacing these methods with mustering and removal, using low-stress methods.⁶⁵ Eight years later, the government released two documents simultaneously, the *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park (2008 Horse Plan Review)* and the *2016 Draft Horse Plan*.⁶⁶ These were released as companion documents, with the *2008 Horse Plan Review* identifying gaps, deficiencies and future problems, while the *2016 Draft Horse Plan* identified potential solutions.

The *2008 Horse Plan Review* pointedly noted that “few of the objectives” in the *2008 Horse Plan* had been achieved, making three important findings:⁶⁷ first, that wild horses had not been excluded from areas identified by the *2008 Horse Plan*;⁶⁸ second, that trapping and mustering, which cost approximately \$1,116 per horse, had not been successful;⁶⁹ and third, that wild horses were expanding their range.⁷⁰ Accordingly, wild horses were still adversely impacting park values and the control methods selected by the *2008 Horse Plan* had not succeeded, leading to calls for these methods to be re-evaluated.⁷¹

The *2016 Draft Horse Plan* recommended a more aggressive approach and instead of relying solely on trapping and removal, also envisaged the use lethal methods, although not aerial shooting.⁷² The initial

⁶⁰ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 3, 33.

⁶¹ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 1.

⁶² NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 7.

⁶³ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 7.

⁶⁴ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 7.

⁶⁵ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 25.

⁶⁶ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 1; Office of Environment and Heritage, *Kosciuszko National Park Draft Wild Horse Management Plan 2016*, n 4.

⁶⁷ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 5, 1.

⁶⁸ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 5, 1.

⁶⁹ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 5, 6, 9, 14.

⁷⁰ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 5, 1.6, 14.

⁷¹ Office of Environment and Heritage, *Review of the 2008 Horse Management Plan and Wild Horse Management Program, Kosciuszko National Park*, n 5, 15–20.

⁷² Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 24–25.

aim was to reduce the horse population from an estimated 6,000 individuals to fewer than 3,000 within 10 years and then achieve further reductions, down to 600 individuals within 20 years.⁷³ These aims were justified on the grounds that horse populations could be reduced quickly, involving less animal suffering, as well as being more cost-effective compared to trapping and removal.⁷⁴ Once reductions had been attained, the plan would have allowed for a remnant population of approximately 600 horses, who would have been managed by non-lethal methods such as fertility control and small-scale removal.⁷⁵

The draft plan was released on 1 May 2016 and was open for public submissions for 16 weeks, ending on 19 August 2016. Submissions were made by a range of stakeholders including the Invasive Species Council,⁷⁶ the Australian Veterinary Association⁷⁷ and the Animal Justice Party.⁷⁸ Some viewpoints expressed concern with deficiencies in monitoring and auditing the proposed cull, as well as shortcomings that failed to link culling to specific targets for protection of biodiversity.⁷⁹ Others criticised culling, per se because it could not be upheld on ethical or moral grounds, with one submission also questioning the costings proffered by the *2008 Horse Plan Review*.⁸⁰ This submission, made by Brumby Rescue Inc, pointed out that the cost of \$1,116 per horse identified by the Review, included capital costs for infrastructure, which would not be relevant beyond 2016.⁸¹ Moreover, claims were made that the *2016 Draft Horse Plan* did not adequately address environmental issues derived from leaving horse carcasses on site, because the carcasses would provide food for other introduced species such as dogs, pigs and foxes.⁸² In addition, the carcasses could spread diseases such as ringworm, melioidosis and dermatophilosis.⁸³

By way of contrast, other submissions challenged the proscription against aerial shooting, arguing that this method was appropriate for some topographies.⁸⁴ This viewpoint accords with provisions in the “Standard Operating Procedure, HOR002: Aerial Shooting of Feral Horses” that similarly supports aerial shooting in accessible terrains.⁸⁵ Unlike animal ethicists, environmentalists generally consider aerial shooting to be humane; animals can be killed cleanly and “wounded animals can be followed up and quickly killed with additional shots”.⁸⁶ However, whether a clean kill is achieved depends on the skill of the shooter; and it also does not take into account the fact that helicopter pursuits cause distress to horses as well as occasioning environmental damage when horses take flight.⁸⁷ Aerial shooting has been especially contentious, as demonstrated by the abandonment of a proposed cull in Coffin Bay National

⁷³ Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 3, 23.

⁷⁴ Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 23.

⁷⁵ Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 23.

⁷⁶ Invasive Species Council, “Draft Wild Horse Management Plan: Kosciuszko National Park, Submission by the Invasive Species Council” (2016) <<https://invasives.org.au/wp-content/uploads/2016/08/ISC-sub-to-KNP-draft-horse-plan.pdf>>.

⁷⁷ Australian Veterinary Association, “NSW Wild Horse Management Plan August 2016 Submission from the Australian Veterinary Association Limited” (2016) <<https://www.ava.com.au/policy-advocacy/advocacy/improving-animal-welfare/>>.

⁷⁸ The Honourable Mark Pearson, Animal Justice Party, Submission to the Draft Wild Horse Management Plan, 2016 <<http://markpearson.org.au/wp-content/uploads/2016/08/PearsonAJPBBrumbyManagementPlanSubmission19Aug16.pdf>>.

⁷⁹ Australian Veterinary Association, n 77, 3.

⁸⁰ The Honourable Mark Pearson, Animal Justice Party, n, 78, 4; HOOFs 2010 Inc Brumby Rescue, *Submissions to Wild Horse Draft Plan* (2016).

⁸¹ HOOFs 2010 Inc Brumby Rescue, n 80.

⁸² HOOFs 2010 Inc Brumby Rescue, n 80.

⁸³ Trudy Sharp, “Standard Operating Procedure, HOR001: Ground Shooting of Feral Horses”, *PestSmart*, 2018, 2 <https://www.pestsmart.org.au/wp-content/uploads/2018/02/180123_SOP_HOR001-web.pdf>.

⁸⁴ Invasive Species Council, n 74, 3.

⁸⁵ Trudy Sharp, “Standard Operating Procedure, HOR002: Aerial Shooting of Feral Horses”, *PestSmart*, 2018, 1, 2 <https://www.pestsmart.org.au/wp-content/uploads/2018/02/180123_SOP_HOR002-web.pdf>.

⁸⁶ Rosalie Chapple, “The Politics of Feral Horse Management in Guy Fawkes River National Park, NSW” (2005) 33(2) *Australian Zoologist* 233, 237.

⁸⁷ Jordan O Hampton et al, “Assessment of Animal Welfare for Helicopter Shooting of Feral Horses” (2017) 44 *Wildlife Research* 97, 104.

Park, South Australia, following adverse publicity;⁸⁸ while an aerial cull in the Guy Fawkes National Park, which was carried out without prior consultation, was widely condemned.⁸⁹

Debate concerning the *2016 Draft Horse Plan* continued for more than eighteen months.⁹⁰ Then, as already noted, the government surprised stakeholders by announcing that it intended to protect wild horses, introducing the *Wild Horse Bill 2018*. The second Reading Speech, on 23 May 2018 is instructive.

C. Wild Horse Act 2018: Second Reading Speech and Conflicts

The speech commences by emphasising the cultural value of wild horses, noting that “they are part of the cultural fabric and folklore of the high country”.⁹¹ It then proceeds to appraise the *2016 Draft Horse Plan*, censuring the proposal to use lethal measures and the resulting “horrific mass slaughter”, which would have ensued from aggressive reduction targets.⁹² The speech also criticised the decision to leave horse carcasses to rot where they were killed. Instead, the proposed *Wild Horse Act* identifies areas within KNP where horses could be re-settled and populations reduced by adoption, rehoming and where feasible, by fertility control.⁹³ The Minister further noted that “the brumby has a right to exist in the Snowy Mountains region” and that the new legislation will require “all future plans of management for the Kosciuszko National Park to recognise the cultural significance of wild horses”.⁹⁴ The latter became an objective of the *Wild Horse Act*, so that regulators are now to recognise “the heritage value of *sustainable* wild horse populations ... and to protect that heritage”.⁹⁵

The act envisages that these objectives will be achieved by a wild horse heritage management plan, which will identify how the heritage values of “sustainable wild horse populations” will be maintained, while simultaneously being consistent with environmental values of the park.⁹⁶ The plan is to be prepared and implemented under the guidance of a Wild Horse Community Advisory Panel.⁹⁷ At the time of writing, the Panel had not yet been established, but its members will include at least one Aboriginal person, a community representative, a representative of the Minister, as well as other members with experience in tourism, recreational planning, animal welfare management and/or conservation.⁹⁸

In the 12 months or so since that Act became law, Mr Barilaro has publicly denied a “backflip”, instead indicating that the practical import of the new legislation is not as far-reaching as assumed.⁹⁹ In March 2019 he confirmed that “we all agree ... we need a 50 per cent reduction immediately” and the only change that the bill introduces is to highlight the cultural value of wild horses.¹⁰⁰ Given that the legislation refers to “sustainable” populations of horses and this will be determined by a new management plan, it has done little to quell the debate and the legislation continues to generate controversy.

The Invasive Species Council, a strong opponent of the *Wild Horse Act*, has issued a number of media releases referring to the impracticability of non-lethal methods, noting that horse populations have been

⁸⁸ Generally, Adrian Peace, “Ponies Out of Place? Wild Animals, Wilderness and Environmental Governance” (2009) 19(1) *Anthropological Forum* 53.

⁸⁹ Chapple, n 86, 234–235.

⁹⁰ For example, Malone and Hoh, n 8; Staight, n 8; Driscoll, n 8; Condon and Becker, n 8.

⁹¹ Barilaro, Kosciuszko Wild Horse Heritage Bill 2018, 23 May 2018, Proof, n 16, 25.

⁹² Barilaro, Kosciuszko Wild Horse Heritage Bill 2018, 23 May 2018, Proof, n 16.

⁹³ Barilaro, Kosciuszko Wild Horse Heritage Bill 2018, 23 May 2018, Proof, n 16, 26–27.

⁹⁴ Barilaro, Kosciuszko Wild Horse Heritage Bill 2018, 23 May 2018, Proof, n 16, 27.

⁹⁵ *Kosciuszko Wild Horse Heritage Act 2018* (NSW) s 4 (emphasis added).

⁹⁶ *Kosciuszko Wild Horse Heritage Act 2018* (NSW) ss 5, 5(2).

⁹⁷ *Kosciuszko Wild Horse Heritage Act 2018* (NSW) s 5(3) Sch 1.

⁹⁸ *Kosciuszko Wild Horse Heritage Act 2018* (NSW) s 5(3) Sch 1.

⁹⁹ Hunt and Becker, n 14.

¹⁰⁰ Hunt and Becker, n 14.

“left uncontrolled” for over 12 months.¹⁰¹ The Council has also spearheaded a community campaign, titled “Reclaim Kosci”, which is designed to apply political pressure to repeal the *Wild Horse Act*.¹⁰² This movement is consistent with other developments, including the presentation of a parliamentary petition calling for the repeal of the *Wild Horse Act*¹⁰³ and the introduction of three private members’ bills along the same lines.¹⁰⁴ Nevertheless, official policy continues to support the *Wild Horse Act*, along with passive management, pursuant to the *2008 Horse Plan*, which continues in force until the adoption of a new plan.¹⁰⁵ In addition to the controversies just discussed, the government’s stance generates the probability of confusion at a number of levels.

To start with, uncertainty derives from the potential of the *Wild Horse Act* to conflict with other legislative and policy instruments, such as: the Alps MOU; the *2006 Management Plan*; and, the listing of wild horses as a threatening process under the *Biodiversity Conservation Act 2016 (NSW) (Biodiversity Act)*.¹⁰⁶ It will be recalled that the parties to the Alps MOU have agreed to implement supportive measures, leading to sustainable use and protection of the natural and cultural values of the Alps. While the MOU refers to cultural values, they do not appear to be prioritised and arguably the MOU considers natural values to be more important.¹⁰⁷ This contrasts with the emphasis on cultural and heritage values proffered by the *Wild Horse Act*, creating a latent area of dispute which will be challenging to resolve. A similar argument can be made with respect to the *2006 Management Plan* that clearly aims to exclude wild horses from a number of areas within KNP, again calling for finely-tuned administration if the potential for conflict with the *Wild Horse Act* is to be managed successfully.¹⁰⁸

The third point of contention emerged on 30 November 2016, when habitat degradation by wild horses was listed as a key threatening process, pursuant to the *Biodiversity Act*: “Habitat degradation and loss by Feral Horses (brumbies, wild horses), *Equus caballus* Linnaeus 1758”.¹⁰⁹ Following this listing, the Chief Executive of the Office of Environment and Heritage is expected to establish a conservation program to minimise the impacts of wild horses.¹¹⁰ This development is further reinforced by existing

¹⁰¹ Invasive Species Council, “Revealed: Kosciuszko Feral Horse Program in Meltdown” (Media Release, 15 January 2019) <<https://invasives.org.au/media-releases/revealed-kosciuszko-feral-horse-program-in-meltdown/>>. Invasive Species Council, “Re-homing Not Enough to Stop Kosciuszko’s Feral Horse Crisis” (Media Release, 10 September 2019) <<https://mailchi.mp/invasives/rehoming-not-enough?e=67ce680004>>.

¹⁰² The campaign includes supporters such as, “the National Parks Association of the ACT, National Parks Association of NSW, Colong Foundation for Wilderness and the Nature Conservation Council of NSW” <<https://reclaimkosci.org.au/>>.

¹⁰³ Petition to repeal the *Kosciuszko Wild Horse Heritage Act 2018* (NSW), 6 June 2019 <<https://www.parliament.nsw.gov.au/la/papers/Pages/tabledpaperprofiles/10000-signature-petition--ms-trish-doyle--from-certain-citizens-asking-the-legislative-assembly-to-repeal-the-kosciuszko-wi.aspx>>.

¹⁰⁴ Petition to repeal the *Kosciuszko Wild Horse Heritage Act 2018* (NSW), n 103; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, 25 October 2018, introduced by Cate Faehrmann, n 14; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, 18 June 2019, introduced by Cate Faehrmann, n 14; *Kosciuszko Wild Horse Heritage Repeal Bill 2019*, 8 August 2019, introduced by Penny Sharpe, n 14; press discussion, Hunt and Becker, n 14.

¹⁰⁵ Matt Kean, Minister for Energy and the Environment, Response, 23 July, 2019 <<https://www.parliament.nsw.gov.au/tp/files/76202/Govn%20response%20to%20more%20than%2010000%20petition%20concerning%20Kosciuszko%20Wild%20Horses.pdf>>.

¹⁰⁶ *Biodiversity Conservation Act 2016* (NSW) ss 4.31–4.34 Sch 4, NSW Scientific Committee, “Habitat degradation and loss by Feral Horses (Brumbies, Wild Horses), *Equus caballus* Linnaeus 1758”, 30 November 2016 <<https://www.environment.nsw.gov.au/resources/threatenedspecies/determinations/FDHorsesKTPNov.pdf>>.

¹⁰⁷ *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, paras 2 and 3.2.

¹⁰⁸ 2006 Plan of Management Kosciuszko National Park, as amended in 2010 and 2014, n 34, 193.

¹⁰⁹ *Biodiversity Conservation Act 2016* ss 4.31–4.34 Sch 4, NSW Scientific Committee, “Habitat degradation and loss by Feral Horses (Brumbies, Wild Horses), *Equus caballus* Linnaeus 1758”, n 106.

¹¹⁰ *Biodiversity Protection Act 2016* (NSW) s 4.35. At the time of writing, the Office of Environment and Heritage had been disbanded following the 2019 NSW State elections and there were no clear guidelines as to whether, and how, this role would continue.

obligations pursuant to the *National Parks and Wildlife Act 1974* (NSW) which specifically states that management plans for national parks need to mitigate threatening processes.¹¹¹

It remains to be seen how regulators navigate the complexities of managing wild horses, which are simultaneously listed as a threatening process, while also being earmarked for preservation as objects of cultural and heritage value. A possible middle-ground stems from the fact that pursuant to the *Biodiversity Act*, the Chief Executive is to minimise impacts on wild horses, rather than eradicate them and the *Wild Horse Act* refers to maintaining “sustainable” wild horse populations. This indicates that there may be room for compromise and consistency. However, it will be a fine balancing act, dependant on the content and scope of the new management plan to be devised pursuant to the *Wild Horse Act*.

In the light of these challenges, it is clear that regulation of wild horses involves a complex mixture of stakeholder viewpoints, not amenable to easy resolution. By stopping the cull, the *Wild Horse Act* has united animal ethicists and culturalists on one side of the debate, leaving environmentalists on the other side.¹¹² However, as will be argued in the next part, this approach has muddied the waters, leaving the regime open to accusations of politicisation, without resolving key problems.

IV. POLITICISATION, GOVERNANCE AND ANIMAL ETHICS

Criticisms of politicisation largely centre on allegations that the *Wild Horse Act* has surrendered to commercial interests, ignoring the threat of environmental degradation posed by wild horses. These criticisms are exacerbated by the establishment of new governance mechanisms, which environmentalists fear will place decision-making in the hands of those not suited to making ecologically-relevant determinations. At the same time, the legislation does not broach wider regulatory issues pertaining to the ethics killing wild horses.

A. Politicisation

The use of political pressure to influence law and policy is a common feature of the regulatory landscape.¹¹³ It provides a means of balancing competing interests, achieving compromise and allowing regulation to move forward. As discussed, the second reading speech for the *Wild Horse Act* identified multiple concerns, including protection of the environment, the unpopularity of culling and the iconic nature of wild horses. However, notwithstanding references to each of these matters, the speech promotes the cultural dimensions of wild horse management.

In fact, a large part of the speech is devoted to the benefits of tourism and the positive links to wild horses. The speech also acknowledges the passionate advocacy proffered by local communities, including by a former member of parliament who operates commercial tourist activities in the region.¹¹⁴ The latter, in particular, has engendered public perceptions that the *Wild Horse Act* was designed to safeguard business interests over and above other concerns.¹¹⁵ If this is the case, wild horses are protected because of their financial benefits, which happen to accompany cultural and heritage considerations. Indeed, the advancement of commercial interests appeared to have been in mind before the introduction of the *Wild Horse Bill 2018*. A press release dated 17 April 2018, announced that 27 million dollars had been earmarked to “transform tourism in the region” by enhancing the system of hiking and biking trails.¹¹⁶

¹¹¹ *National Parks and Wildlife Act 1974* (NSW) s 72AA(1)(q).

¹¹² For example, the Animal Justice Party supports the *Kosciuszko Wild Horse Heritage Act 2018* (NSW), while eschewing lethal control of any kind, placing them at odds with the Greens Party, Mark Pearson, MLC, “The Greens – they Shoot Horses Don’t They” (Media Release, 12 November, 2018) <<https://markpearson.org.au/tag/brumby/>>.

¹¹³ Generally, MD Young, “Pressures for Competing Uses of the North West Pastoral Lands of Australia” (1981) 3(2) *The Rangeland Journal* 149; James Prest. “The Bald Hills Wind Farm Debacle” in Tim Bonyhady and Peter Christoff (eds), *Climate Law in Australia* (The Federation Press, 2007) 230.

¹¹⁴ Barilaro, *Kosciuszko Wild Horse Heritage Bill 2018*, 23 May 2018, n 16, 27–28.

¹¹⁵ Becker and Pittaway, n 11; Park, n 12.

¹¹⁶ Mr Barilaro and Gabrielle Upton, the Minister for the Environment, “Multi-million Dollar Boost for Kosciuszko” (Press Release, 17 April 2018) <<http://johnbarilaro.com.au/multi-million-dollar-boost-for-kosciuszko/>>.

The media release also highlighted economic benefits to the region noting that it would open up local business opportunities year-round. This focus has coincided with changes to governance arrangements, causing a degree of dissidence in the scientific community.

B. Governance and Environmental Protection

Governance mechanisms may be concisely defined as “the structure and practice of decision-making in an organization or society”.¹¹⁷ They determine goals and objectives, extending beyond the power exercised by government to include “collective decision-making” and the role played by institutions.¹¹⁸ In the former case, the collective includes “those who are governed”;¹¹⁹ while in the latter case, institutional mechanisms become centres for conflict-resolution, which in an environmental context, enables or curtails how society uses the environment and its resources.¹²⁰

The main governance system that underpins regulation of the Australian Alps is the national parks system.¹²¹ In New South Wales, this system is established by the *National Parks and Wildlife Act 1974* (NSW) which administers a range of law and policy, including: The *Biodiversity Conservation Act 2016* (NSW); the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth); and the *2006 Management Plan*. These instruments are designed to give effect to a series of objectives, such as, compliance with international obligations deriving from treaty systems and more particularly, the *Convention on Biological Diversity (CBD)*.¹²² Importantly for the management of wild horses, Art 8(h) of the *CBD* obliges the contracting parties to control, eradicate and prevent the introduction of alien species that threaten habitats and biodiversity. Thus, regulators are under international obligations to deal with environmental damage attributable to wild horses. The national parks system also manages the Alps MOU, which has been signed by the Directors, Executives and Chief Executives of National Parks of each jurisdiction.¹²³ In a similar manner, the Alps Committee also comprises a senior officer from national parks in each State or Territory.¹²⁴

It is also important to keep in mind that governance arrangements initiated by the national parks system do more than administer law and policy as they additionally provide institutional parameters for society’s interactions with nature. These parameters lead to differing perspectives on how national parks should be used and administered. Some stakeholders consider that managers should only permit low-impact uses, while others favour recreational and/or commercial uses, such as cattle grazing and timber harvesting.¹²⁵ Notwithstanding these variations, overall governance mechanisms are strongly science based. The *2016 Draft Horse Plan* noted that NPWS had obligations “to protect the range of natural and cultural values within the park”, including duties to minimise the effects of wild horses on the park.¹²⁶ What is more, environmental protection would have been reinforced by the establishment of:

¹¹⁷ R Quentin Grafton, Linwood H Pendleton and Harry W Nelson (eds), *A Dictionary of Environmental Economics, Science and Policy* (Edward Elgar Publishing, 2001) 119.

¹¹⁸ Vasudha Chhorray and Gerry Stoker, *Governance Theory and Practice: A Cross-disciplinary Approach* (Palgrave Macmillan, 2009) 19.

¹¹⁹ Robyn Bartel, “Vernacular Knowledge and Environmental Law: Cause and Cure for Regulatory Failure” (2014) 19(8) *Local Environment* 891, 894.

¹²⁰ Matthew Paterson, David Humphreys and David Pettiford, “Conceptualizing Global Environmental Governance: From Interstate Regimes to Counter-hegemonic Struggles” (2003) 3(2) *Global Environmental Politics* 1, 3.

¹²¹ Michael Lockwood et al, “Biodiversity Governance and Social-Ecological System Dynamics: Transformation in the Australian Alps” (2014) 19(2) *Ecology and Society* 13, 16.

¹²² *Convention on Biological Diversity 1992*, the Convention was adopted 5 June 1992, [1993] ATS no 32 (entered into force 29 December 1993). The convention had 196 Parties as of May 2019.

¹²³ *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, paras 2 and 3.2.

¹²⁴ *Memorandum of Understanding in Relation to the Cooperative Management of the Australian Alps National Parks*, n 47, para 5.2.

¹²⁵ Lockwood et al, n 121, 21, 22.

¹²⁶ Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 3.

[A] scientific panel to design a wild horse survey methodology that quantifies the environmental damage caused by wild horses, in addition to estimating total wild horse numbers.¹²⁷

This would have given an overwhelmingly scientific base for regulation, an approach that has been overturned by the *Wild Horse Act*. It will be recalled that pursuant to that act, parliament has created the Wild Horse Community Advisory Panel, whose membership is drawn from a wide cross-section of the community. Although the panel will still operate under the auspices of the national parks system, decision-making is not necessarily determined by science. Not surprisingly, the scientific community has been critical of this move.

Following the announcement of the *Wild Horse Act*, The Australian Academy of Science co-convened a one-day conference on 8 November 2018, under the banner, “Feral Horse Impacts: The Kosciuszko Science Conference”. An important outcome of the conference was a declaration titled, “The Kosciuszko Science Accord”, which calls for the repeal of the *Wild Horse Act*, re-iterating the need to reduce horse populations by culling.¹²⁸ The Accord has also critiqued the legislation for transferring decision-making and advice to a panel without scientific representatives and/or lacking in professional resource managers.¹²⁹ However, given that the *Wild Horse Act* calls for members of the community panel to have, among other things, experience in conservation, animal welfare management and/or recreational planning, this criticism may be overstated. Undoubtedly, the proposal means that the panel will not have a preponderance of scientists, but that is not the same as saying that it lacks scientific representation.

In reality, while the establishment of the advisory panel does not exclude science from decision-making, it does tacitly acknowledge that science does not automatically provide answers to management decisions. In particular, although scientists consider their discipline to be objective, generating knowledge and proffering the most effective way of resolving environmental problems, questions still remain whether science is up to dealing with societal issues in an inclusive way.¹³⁰ The answer depends on the role given to science.

The use of science operates along a continuum, ranging from applied science, as a “rational process of objective enquiry”, to civic science, which is inclusive of social values.¹³¹ In the latter case, science has an important role to play, but so too do community viewpoints and community participation. The role of science is thus seen to provide “a framework for negotiation and compromise”.¹³² Accordingly, while science can identify environmental damage attributable to wild horses, it does not automatically follow that regulators ought to use lethal methods to manage these horses. The difficulty lies in determining priorities among what essentially are competing human values. The *Wild Horse Act* has not resolved these challenges. Although the second reading speech emphatically rejected the use of lethal measures, it did this based on cultural issues. Yet, cultural issues do not necessarily touch on the morality of management tools based on lethal measures. That issue requires engagement with animal ethics, a discipline that lies at the heart of evaluating whether lethal measures are morally justified.

C. Animal Ethics

In many instances, environmental management and animal ethics have areas of overlap and agreement. In KNP for example, an overabundance of horses can generate environmental harm and can also lead

¹²⁷ Office of Environment and Heritage, *Draft Wild Horse Management Plan 2016*, n 4, 13–21, 23.

¹²⁸ Conference Declaration, “The Kosciuszko Science Accord” (2019) 20(1) *Ecological Restoration and Management* 75, Special Issue: Feral Horses in the Australian Alps.

¹²⁹ Conference Declaration, n 128, 76.

¹³⁰ J Derek Scasta, Jacob D Hennig and Jeffrey L Beck, “Framing Contemporary U.S. Wild Horse and Burro Management Processes in a Dynamic Ecological, Sociological, and Political Environment” (2018) 12 (1) *Human-Wildlife Interactions* 31, 41.

¹³¹ Matthew Cashmore, “The Role of Science in Environmental Impact Assessment: Process and Procedure Versus Purpose in the Development of Theory” (2004) 24(4) *Environmental Impact Assessment Review* 403, 405, 410; Angus Morrison-Saunders and John Bailey, “Practitioner Perspectives on the Role of Science in Environmental Impact Assessment” (2003) 31(6) *Environmental Management* 683, 685.

¹³² Cashmore, n 131, 413.

to insufficient resources to support wild herds.¹³³ This can result in a slow death from starvation and/or horses resorting to extraordinary ways of surviving, such as feeding on the remains of digestive tracts of dead horses.¹³⁴ Yet, tension invariably surfaces when determining how to manage these challenges. Some stakeholders justify culling on the basis of maintaining ecosystem health, while others argue against culling on the basis of individual animal wellbeing.¹³⁵

Traditional management approaches concentrate on classifying and mitigating ecological damage and thus categorise the problem as an environmental one.¹³⁶ Culling therefore becomes justified where environmental benefits outweigh the detriment of killing, provided regulators adhere to accepted animal welfare practices.¹³⁷ This invariably involves identifying the least cruel method of killing, but does not otherwise engage with broader ethical issues, such as the need to kill, or indeed, the “moral legitimacy” of regimes.¹³⁸ Consequently, law and policy rarely acknowledge that control and eradication methods, promoted as being the least cruel, may nevertheless entrench cruelty.¹³⁹ Indeed, as recently as the mid-1990s, ethical and social concerns were brushed aside as little more than “zigzagging flights into the ethereal, non-productive realm of postmodernist rhetoric [by a] small class of self-reflective intellectuals”.¹⁴⁰

In the 21st century, ethical concerns cannot be so readily dismissed. The last two decades have seen the role of animal ethics gaining increasing traction in debates regarding environmental regulation.¹⁴¹ As a result, the issue now forms part of a wider discussion concerning humanity’s obligations towards nature, crystallising in philosophies of Earth jurisprudence, notions of compassionate conservation and wild law.¹⁴² For these reasons, the legitimacy of wildlife management can no longer be vindicated solely on the grounds of killing for the greater good. In particular, with reference to the *Wild Horse Act*, the ethical dimensions involved in killing extend beyond consideration of cultural matters.

Management of wild horses is an especially emotive issue, since the human-horse relationship is seen as “trust-based”, depending on society’s stewardship towards horses.¹⁴³ This is complicated by the fact that humans were responsible for introducing and spreading wild horses, as well as being largely responsible for reducing horse numbers, because natural events such as drought and snow storms play a lesser

¹³³ Harvey, Joone and Hampton, “Hold Your Horses – Brumby Fertility Control Isn’t that Easy”, *The Conversation*, 28 May 2018 <<https://theconversation.com/hold-your-horses-brumby-fertility-control-isnt-that-easy-97313>>; the feeding was described as never documented before, Don Driscoll and Sam Banks, “The Grim Story of the Snowy Mountains’ Cannibal Horses”, *The Conversation*, 23 September 2014 <<https://theconversation.com/the-grim-story-of-the-snowy-mountains-cannibal-horses-31691>>.

¹³⁴ Driscoll and Banks, n 133.

¹³⁵ Christine M Reed, “Wild Horse Protection Policies: Environmental and Animal Ethics in Transition” (2008) 31(3) *International Journal of Public Administration* 277.

¹³⁶ William S Lynn, “Contested Moralities: Animals and Moral Value in the Dear/Symanski Debate” (1998) 1(2) *Ethics, Place and Environment* 223, 224.

¹³⁷ Lynn, n 136.

¹³⁸ Lynn, n 136.

¹³⁹ Generally, Scholtz, n 18, 9; Sophie Riley, “Model Codes for the Humane Treatment of Animals: Australian Law and Policy on Lethal Control of Pests” (2015) 18(4) *JIWLP* 276.

¹⁴⁰ Symanski, n 43, 264; for additional critiques of non-scientific approaches to environmental protection, Richard Symanski, “Dances with Horses: Lessons from the Environmental Fringe” (1996) 10(3) *Conservation Biology* 708, 712.

¹⁴¹ Paul W Taylor, *Respect for Nature* (Princeton University Press, 25th Anniversary Ed, 1986) 3; generally, Thomas Berry, *The Great Work: Our Way into the Future* (Three Rivers Press, 1999); David S Trigger, Yann Toussaint and Jane Mulcock, “Ecological Restoration in Australia: Environmental Discourses, Landscape Ideals, and the Significance of Human Agency” (2010) 23 *Society and Natural Resources* 1060; Michelle Maloney, “Earth Jurisprudence and Sustainable Consumption” (2011) 14 *Southern Cross University Law Review* 119; Cormac Cullinan, “A History of Wild Law” in Peter Burdon (ed), *Exploring Wild Law: The Philosophy of Earth Jurisprudence* (Wakefield Press, 2011) 12; Daniel Ramp et al, “A Paradigm Shift for Wildlife Management in Australia” in Marc Bekoff (ed), *Ignoring Nature No More: The Case for Compassionate Conservation* (The University of Chicago Press, 2013) 295; Jordan O Hampton et al, “Integrating Animal Welfare into Wild Herbivore Management: Lessons from the Australian Feral Camel Management Project” (2016) 38 *The Rangeland Journal* 163.

¹⁴² Taylor, n 141; Trigger, Toussaint and Mulcock, n 141; Maloney, n 141; Cullinan, n 141; Ramp et al, n 141; Hampton et al, n 141.

¹⁴³ Scasta, Hennig and Beck, n 130, 34.

role.¹⁴⁴ The aversion towards killing is evident in the *2008 Horse Plan* which is based on removal of horses without systematic culling,¹⁴⁵ as well as being apparent in the Second Reading Speech, which envisages a continuation of non-lethal policies, notwithstanding their long-term failure to reduce population numbers.¹⁴⁶ Given that the *Wild Horse Act* provides for the drafting a new management plan, this furnishes an opportunity to learn from experiences in other jurisdictions, such as the United States.¹⁴⁷

V. LESSONS FROM THE UNITED STATES

The United States has long faced regulatory pressures similar to those of New South Wales, leading to the enactment of the *Wild Horse and Burro Act 1971* (USA).¹⁴⁸ That act protects unbranded horses and burros, limiting culling to old, sick or lame animals, with excess animals being cared for in private holdings.¹⁴⁹ The legislation has been amended several times, including to permit aerial mustering (now repealed) and to allow removal of horses so as to maintain their habitat.¹⁵⁰

The *Wild Horse and Burro Act 1971* (USA) was promulgated for two reasons: first, public outcry at animal cruelty associated with aerial mustering; and second, concern with declining populations of wild horses.¹⁵¹ Notwithstanding a strong anti-cruelty impetus, the recital focusses on the cultural dimensions of management, emphasising that:

[W]ild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West they are to be considered in the area where presently found, as an integral part of the natural system of the public lands.¹⁵²

As a result, lethal measures were sparingly used, an approach that has not been universally welcomed. Ecologists, for example, condemn decision-making where it does not manage for environmental sustainability.¹⁵³ They point to the fact that non-lethal measures have led to increased horse and burro populations, resulting in long-term management difficulties.¹⁵⁴ These failings are also aggravated by pressure on agencies, which have become compelled to adopt unworkable practices.¹⁵⁵

The situation in KNP is similar, but not identical to the United States. Differences include the reach of the legislation, with the US statute applying to horses and burros, while the NSW act applies only to horses. The two pieces of legislation also apply in different jurisdictions and environmental settings, with the NSW *Wild Horse Act* only recently having been enacted. Nevertheless, the critical question in both cases remains the same: how to deal with the abundance of animals.¹⁵⁶ The American experience demonstrates that adoption, rehoming and the use of sanctuaries, on their own, does not lead to long-term

¹⁴⁴ *The Population Ecology of Feral Horses in the Australian Alps Management Summary*, n 27, 5.

¹⁴⁵ NSW National Parks and Wildlife Service, *Kosciuszko National Park Horse Management Plan 2008*, n 2, 25.

¹⁴⁶ Barilaro, *Kosciuszko Wild Horse Heritage Bill 2018*, 23 May 2018, n 16, 27.

¹⁴⁷ In the United States wild horse regulation has been controversial since at least the 1930s, but the *Kosciuszko Wild Horse Heritage Act 2018* (NSW) and *Wild Horse and Burro Act 1971* was enacted in 1971; generally, Roberto Iraola, “The Wild Free-roaming Horses and Burros Act of 1971” (2005) 35 *Environmental Law* 1049.

¹⁴⁸ *Wild Horse and Burro Act 1971*, PL 92-195.

¹⁴⁹ *Wild Horse and Burro Act 1971* ss 1333(2)(A), 1333(2)(B).

¹⁵⁰ Elizabeth A Thomasian, “Should the Wild Free-roaming Horses and Burros Act of 1971 be Reigned in or Turned out to Pasture?” (2012) 22 *San Joaquin Agricultural Law Review* 189, 195–196.

¹⁵¹ Thomasian, n 150, 189–190, 193; generally, Young, n 106, 154.

¹⁵² Generally, Young, n 106, 155.

¹⁵³ Scasta, Hennig and Beck, n 130, 31.

¹⁵⁴ Scasta, Hennig and Beck, n 130.

¹⁵⁵ Keith Norris, “Synthesis A Review of Contemporary U.S. Wild Horse and Burro Management Policies Relative to Desired Management Outcomes” (2018) 12(1) *Human-Wildlife Interactions* 18, 19.

¹⁵⁶ Robert A Garrott, “Wild Horse Demography: Implications for Sustainable Management within Economic Constraints” (2018) 12 (1) *Human-Wildlife Interactions* 46.

population reduction.¹⁵⁷ It is an issue that continues to vex US regulators, notwithstanding approximately 7,000 adoptions per year.¹⁵⁸ These deficiencies led to alternative solutions being proffered, which involved culling large numbers of wild horses, leaving remnant populations to be managed by non-lethal methods.¹⁵⁹ Such proposals are very similar to the recommendations provided by the *2016 Draft Horse Plan* for KNP, with both proposals being equally controversial.¹⁶⁰ Nevertheless, New South Wales can learn valuable lessons from the United States.

To start with, management needs to be dynamic and innovative if it is to have lasting success. At the very least, this entails monitoring, information gathering and adjustment. It is questionable whether these goals can be achieved by policies that ostensibly identify cultural values as the core issue, when in reality the major points of contention derive from public resistance to lethal measures. The latter is a common problem in wildlife regulation and frequently stems from poor integration of animal ethics.¹⁶¹ Regulators have three choices: they can make their case for the ethical advantages of culling; they can develop socially acceptable ways of reducing populations of wild horses; and/or, they can use combinations of these approaches.

In most situations, convincing the public that culling is ethically advantageous, as opposed to administratively convenient, will doubtless prove an uphill battle. This is especially the case where regulators favour methods such as aerial shooting, which are perceived by the public to be brutal. However, in other situations, such as times of drought when animals cannot be saved, the public may be more forgiving.¹⁶² Thus, euthanising wild horses may be humane compared to allowing them to die of hunger or thirst. Yet even in these cases, ethical principles need to be adequately integrated. Suggestions include ensuring that animal ethics is given a central role in the design and implementation of measures, appointing onsite “auditors, or observers”, as well as peer-reviewing and publishing the audits and observations.¹⁶³ Importantly, observers need to be independent of government and it is essential that they include members of animal protection organisations, who should also be given the power to record culling activities. This would allow for analyses of whether culling is in fact effective and ethically superior to non-lethal methods and also allow regulators to address welfare concerns that appear counter-intuitive. A case in point pertains to young-dependent animals, such as foals, where standard practice considers it good welfare to kill the foal if its mother is shot, rather than addressing why a mare with dependant young is shot in the first place.¹⁶⁴

The second option, that of developing acceptable ways of controlling wild horses, is likely to focus on non-lethal methods that extend beyond mustering and rehoming to identify alternative techniques that are ethically and socially acceptable.¹⁶⁵ Much of the research in this field has centred on fertility control, with the US experience demonstrating the need for prudence. A case in point draws from a recent Oregon report, which investigated the feasibility of surgical spaying,¹⁶⁶ a non-lethal form of control, which was nevertheless condemned by animal protection groups because procedures would

¹⁵⁷ Jay F Kirkpatrick, JW Turner Jr and IKM Li, “Contraception of Wild and Feral Equids” (1993) *Contraception in Wildlife Management* 15, 161.

¹⁵⁸ Reed, n 135, 279.

¹⁵⁹ Garrott, n 156, 54.

¹⁶⁰ Generally, Norris, n 155, 18; discussion in Part III B of this article.

¹⁶¹ Hampton et al, n 133, 169.

¹⁶² Sharp, n 83, 1.

¹⁶³ Hampton et al, n 133, 169.

¹⁶⁴ Sharp, n 85, 2.

¹⁶⁵ William H Clay, “The Future of Wildlife Damage Management” (2018) 12(1) *Human-Wildlife Interactions* 150.

¹⁶⁶ United States Department of the Interior Bureau of Land Management, Burns District Office, *Spay Feasibility and On-Range Outcomes Environmental Assessment*, DOI-BLM-ORWA-B050-2019-0013-EA, 13 May 2019, 41, 44, 49–51 <https://eplanning.blm.gov/epl-front-office/projects/nepa/122022/172664/209807/EA_Spay2_051219_ab_with_appendices.pdf>.

have involved separating family groups and keeping selected horses in facilities for research and behavioural studies.¹⁶⁷

Elsewhere, fertility control has centred on the use of immunocontraceptives.¹⁶⁸ Some studies have highlighted the difficulty of treating large populations of wild horses, over wide areas, as well as complications in accessing horses where treatment needs “to be administered ... at close range”.¹⁶⁹ These challenges are exacerbated by the fact that current immunocontraceptives require boosters, which also entails the need to identify horses who have received initial doses. However, other studies are more optimistic, concluding that the effectiveness of fertility control can be enhanced by targeting adults first and then young horses between 0 and 3 years.¹⁷⁰ In addition, scientists in the United States have developed an immunocontraceptive called SpayVac® that does not require booster shots.¹⁷¹ Another promising vaccine, porcine zona pellucida has already been effectively used in Africa and other jurisdictions for more than two decades and could be trialled in New South Wales.¹⁷²

Arguments pitched against the use of immunocontraceptives note it is labour intensive over large areas; yet the same critique can also be levelled at shooting. In Australia, the “Standard Operating Procedure, HOR001: Ground Shooting of Feral Horses”, concedes this very point;¹⁷³ while the “Standard Operating Procedure, HOR002: Aerial Shooting of Feral Horses” draws an analogous conclusion.¹⁷⁴ The latter pointedly notes that aerial shooting is even more labour intensive than ground shooting, because it requires a helicopter, pilots and shooters and is only cost-effective in areas of high horse density.¹⁷⁵ Other criticisms against immunocontraceptives point to the fact technicians need to get sufficiently close to horses to administer the drugs.¹⁷⁶ However, shooters also need to get close to their targets, and as with the administration of contraceptives, a great deal depends on the skill of the operator and the effective range of the firearm or dart gun. In this case, rather than dwelling on the drawbacks of immunocontraceptives, regulators should perhaps address ways to improve the efficiency of contraceptives, leading to the third option.

This third possibility would use a combination of methods, culling sparingly, supplemented by research programs to produce and deliver effective immunocontraceptives. In the United States, researchers have concluded that regulators should accept that “contraceptive technologies may be the key to convincing society” to agree to limited culling.¹⁷⁷ The technology clearly requires further development and this is where government can assist, by providing adequate funds for research, monitoring and adaptation. In New South Wales, whether or not this happens depends on the scope of the management plan to be

¹⁶⁷ Friends of Animals, “Urgent: Oregon’s Wild Horses Need Your Comments about BLM’s Latest Sterilization Scheme”, 21 May 2019 <https://friendsofanimals.org/news/urgent-oregons-wild-horses-need-your-comments-about-blms-latest-sterilization-scheme/?fbclid=IwAR3gc2AXODF1ohTocvGbKbrzNOLbmT14MnL62dqKuwfFh_xaC0JeZFGVxMA>.

¹⁶⁸ Generally, Rebecca J Hobbs and Lyn A Hinds, “Could Current Fertility Control Methods be Effective for Landscape-Scale Management of Populations of Wild Horses (*Equus caballus*) in Australia?” (2018) 45 *Wildlife Research* 195; Ursula S Bechert and Mark A Fraker, “Twenty Years of SpayVac® Research: Potential Implications for Regulating Feral Horse and Burro Populations in the United States” (2018) 12(1) *Human-Wildlife Interactions* 117.

¹⁶⁹ Hobbs and Hinds, n 168, 195, 199, 202–204.

¹⁷⁰ Dawson, n 29, 14.

¹⁷¹ Bechert and Fraker, n 168, 125.

¹⁷² RL Ambrosia et al, “Porcine and Recombinant Zona Pellucida Vaccines as Immunocontraceptives for Donkeys in the Caribbean” (2017) 9(3) *Clinical Theriogenology* 439; Hendrik J Bertschinger et al, “Porcine Zona Pellucida Vaccine Immunocontraception of African Elephant (*Loxodonta Africana*) Cows: A Review of 22 Years of Research” (2018) 48(2) *Bothalia – African Biodiversity and Conservation* 1.

¹⁷³ Sharp, n 83, 1.

¹⁷⁴ Sharp, n 85, 1.

¹⁷⁵ Sharp, n 85, 1.

¹⁷⁶ Harvey, Joone and Hampton, n 133.

¹⁷⁷ Garrott, n 156, 56.

prepared under the guidance of the Wild Horse Community Advisory Panel, as well as the political will of government to engage with alternative and innovative approaches.

VI. CONCLUSION

This article has argued that the regulation of wild horses carries environmental, social and ethical dimensions, which need to be managed appropriately. Otherwise, measures engender conflicts that escalate the complexity of disputes, potentially de-railing regimes.¹⁷⁸ The US experience has shown that managing wild horses solely by relocation and rehoming is unlikely to succeed in the long term. Notwithstanding this antecedent, the second reading speech for the *Wild Horse Act* envisages just such a pathway for New South Wales.

Management has been placed in the hands of a new panel, whose directive is to prioritise the horses' cultural value. Although a great deal depends on how the panel interprets its mandate, by basing the regime on cultural matters, the *Wild Horse Act* has not addressed the fundamental point of contention, which is public aversion to culling. Indeed, public interest in ethical matters is not likely to disappear because authorities have made an ad hoc decision to stop culling in one instance. If government is genuine about protecting wild horses, as well as dealing with unresolved tension between environmental protection and humane management, it needs to fund research and invest in alternative technologies with the objective of protecting the natural values of KNP within an ethically as well as culturally inclusive framework.

¹⁷⁸ Sarah L Crowley, Steve Hinchliffe and Robbie A McDonald, "Conflict in Invasive Species Management" (2017) 15(3) *Front in Ecology and the Environment* 133, 133–135.