Arid Lands Environment Centre

Office: 90 Gap Road Alice Springs NT
Mail: PO Box 2796 Alice Springs 0870 NT
Web: www.alec.org.au
Phone: 08 89522497
Email: policy@alec.org.au

16th March 2022

Pastoral Land Act 1992 Compliance Framework submission

1. Introduction

The Arid Lands Environment Centre (ALEC) is Central Australia's peak environmental organisation. ALEC advocates for the sustainable management of the pastoral estate in the Northern Territory through written submissions, regulatory reform and community engagement. Pastoral land is a key public asset that is vital in protecting biodiversity, the conservation estate and cultural values.

ALEC welcomes the opportunity to provide further comment on the Pastoral Land Compliance Framework (Compliance Framework). We note the substantial amount of work that has taken place and we are appreciative of the comprehensive consultation we have received by the Pastoral Land Administration Branch (PLAB) around the updated Compliance Framework. In addition, we welcome the adoption of some of ALECs recommendations into the updated Compliance Framework. While the updated Compliance Framework is thorough, well-communicated and some progress has been made around long standing governance issues, this framework can only achieve so much when the *Pastoral Land Act* 1992 (NT) (the Act) is unable to ensure that the pastoral estate is effectively and sustainably managed.

ALEC's submission first reiterates that the pastoral estate is a public asset. Then we focus on key factors influencing compliance on the pastoral estate such as: climate change, fire, grazing pressure, the criteria for assessing land condition, a siloed approach to compliance, membership of the PLB and land clearing. Finally, we provide comments on the updated Compliance Framework.

2. The pastoral estate is a public asset

The pastoral estate accounts for 45% of the Northern Territory and lies on crown land, often in accordance with non-exclusive native title holders. As a public asset, the Act enshrines that the public have standing and that the PLB are 'to provide reasonable access for the public across pastoral land to waters and places of public interest'[1]. As a result of the public's interest and rights in the pastoral estate, as well as the significant ecological and cultural values that are located across the pastoral estate, issues around compliance ought to be transparent, accountable and comprehensive.

[1] *Pastoral Land Act* 1992. p.5

ALEC also notes that the interests of Aboriginal people and native title holders are explicit in the objects of the Act in s 4(c) and s 4(e).[2] Matters of compliance impact these rights and accordingly their interests should be recognised.

It is vital that those involved in the governance of the pastoral estate understand and recognise that the pastoral estate is a public asset and that pastoral leaseholders have limited property rights, not private title.

3. Key factors influencing compliance on the pastoral estate

a. Climate change

The pastoral estate has an intimate connection with long-term climatic trends, seasonal variability and weather conditions. Land holders and managers often have a strong connection and understanding of these patterns and cycles. Due to the significance of climate change, ALEC wishes to highlight a snapshot of climate change trends in the Northern Territory.

The Territory is already a place of climate extremes, and climate change is increasing the intensity, frequency and variability of climatic events such as heatwaves, droughts, floods and fires. In Central Australia this means hotter temperatures (*Figure 1*), more intense heat events, longer periods in drought, more erratic rainfall and aquifer recharge (*Figure 2*), drier soils, increased evapotranspiration, and more wildfires[3]. Climate change causes a greater demand on water resources and creates an increased risk of erosion.

In January 2019, the average daily maximum temperature in Alice Springs was 41.5℃, 5℃ above the average maximum temperature for January[4]. Under a high emissions scenario, by the end of the century we can expect every second day in Alice Springs to be above 35 degrees, nearly double the historical average[5]. Tennant Creek and Elliott will see close to an extra 100 days above 35℃[6] across the same period. In Alice Springs between 1989-2018, there were six-times more days above 44℃ than between 1959-1988[7]. Tennant Creek across the same period has experienced 7 days a year above 44℃ compared to zero in the 30 years prior[8]. Alice Springs has warmed by 2℃ comparing the annual maximum temperatures between 1942-1951 and 2012-2021[9] (Figure 1) and similar trends can be found across Central Australia. An increased variability and intensity in rainfall has been observed in Alice Springs (Figure 2), with a median rainfall of 237.9mm recorded across the historical record.

The realities of climate change are stark with its impacts cascading and compounding[10]. See Appendix A for a high-level 1-page summary of key impacts and conclusions on the Australasian

[2] Ibid. p.5.
[3] **CSIRO. 2020**. 'Climate change in the Northern Territory: State of the science and climate change impacts'.
[4] **Bureau of Meteorology. 2021**. 'Climate data online: Monthly mean maximum temperature: Alice Springs Airport'. Accessed March 2022.
[5] CSIRO. 2020, p.14. 'Climate change in the Northern Territory: State of the science and climate change impacts'.
[6] Ibid.
[7] Ibid.
[8] Ibid
[9] Bureau of Meteorology. 2021. 'Climate data online: Monthly mean maximum temperature: Alice Springs Airport'. Accessed March 2022.
[10] **Intergovernmental Panel on Climate Change**, 2022, p.3. 'Chapter 11: Australasia'. IPCC WGII Sixth Assessment Report: Full report.

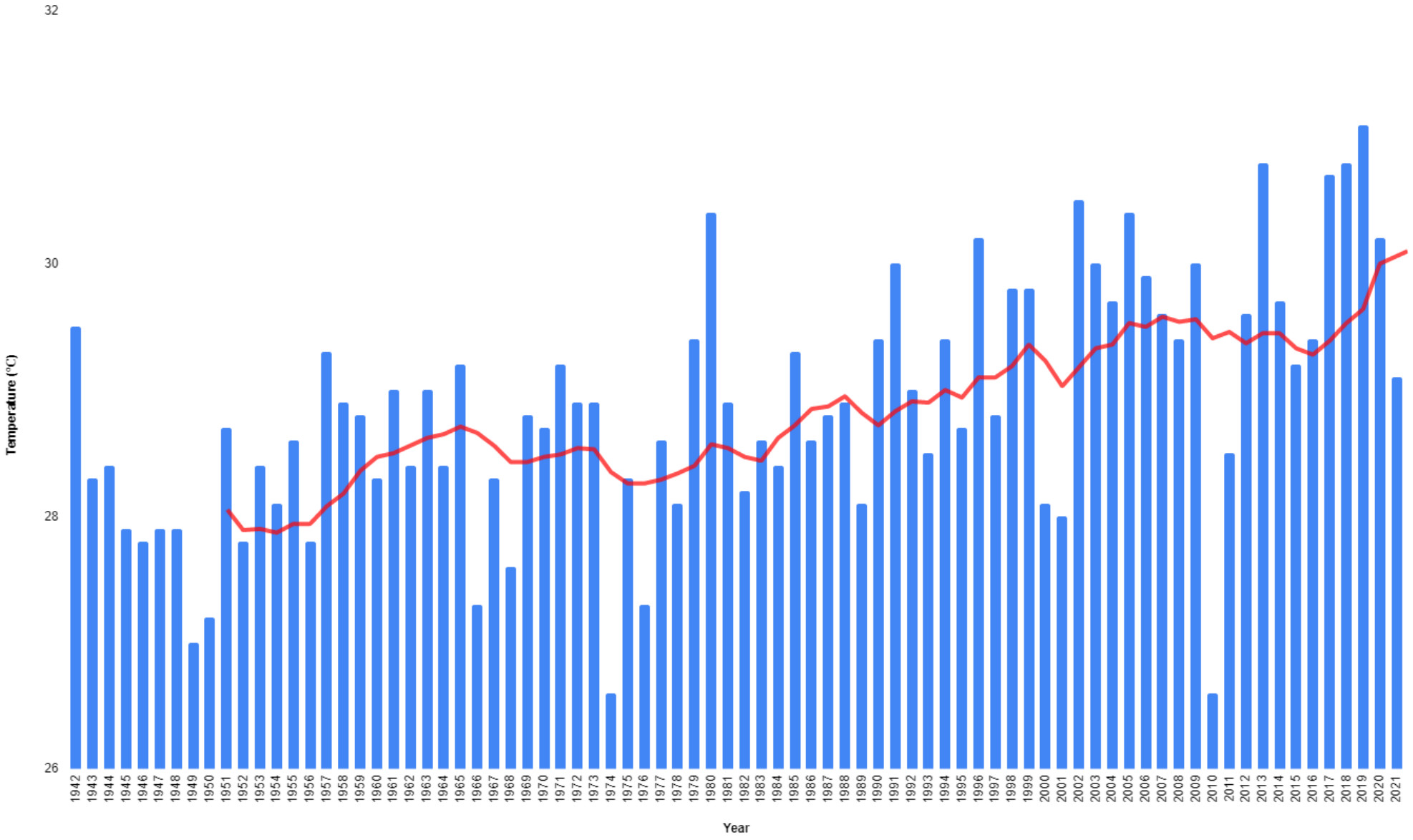

Figure 1. Alice Springs annual maximum temperature (°C) between 1942-2021 with a 10-year moving average trendline. Data: BOM

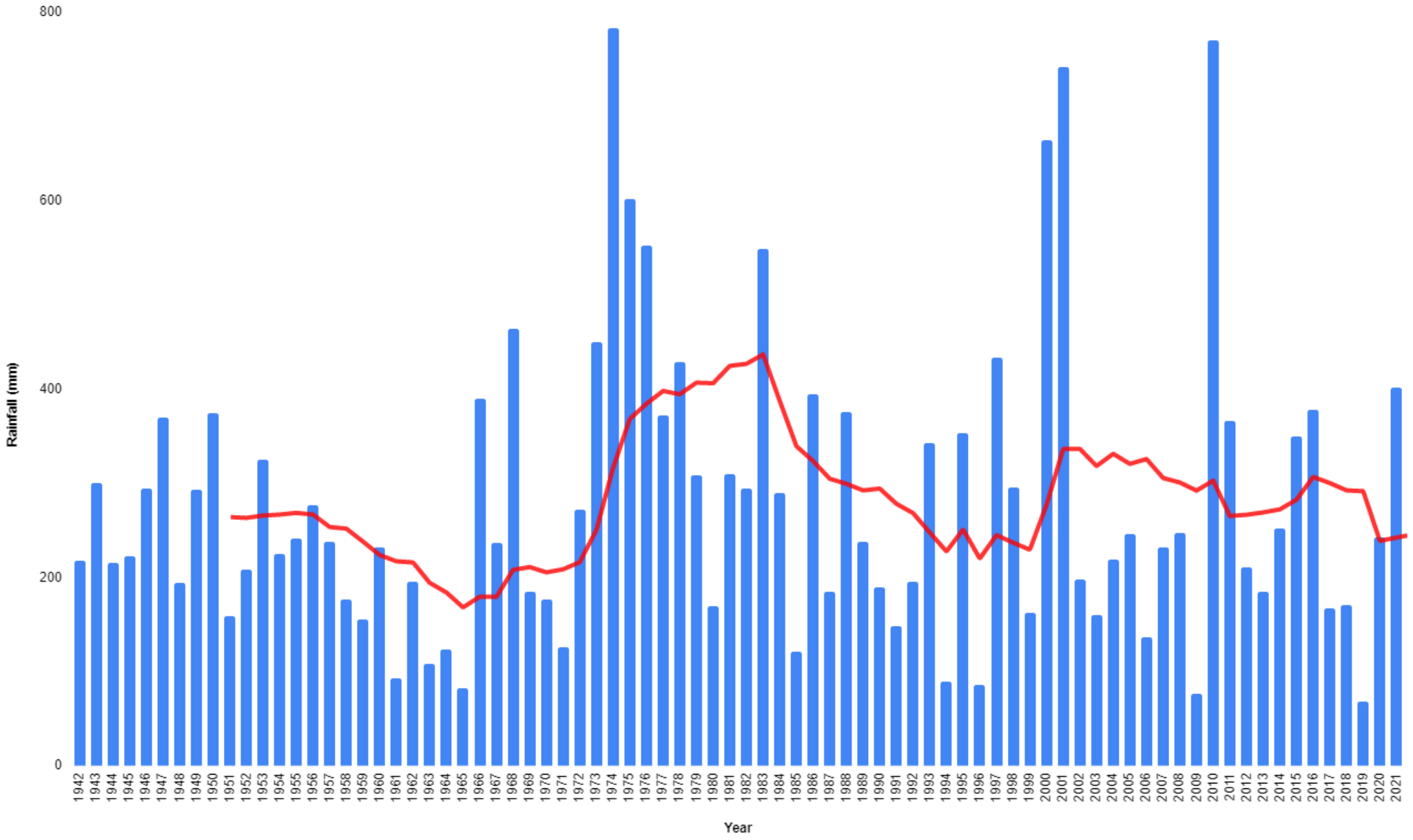

Figure 2. Alice Springs annual rainfall in millimetres between 1942-2021 with a 10-year moving average trendline. Median rainfall across the historical record is 237.9mm. Data: BOM

region from the Intergovernmental Panel on Climate Change Report *Climate Change 2022: Impacts, Adaptation and Vulnerability* (Appendix A).

Climate change also further threatens already at-risk ecosystems. It is understood that arid and semi arid environments are undergoing collapse, (as are savannah and mangrove environments in the Top-End)[11]. This is due to temperature and precipitation changes, habitat change and loss, invasive species such as buffel grass, livestock, agriculture and water extraction[12]. Collapse is understood as an ecosystem which has undergone as 'a change from a baseline state beyond the point where an ecosystem has lost key defining features and functions and is characterised by declining spatial extent, increased environmental degradation, decreases in, or loss of, key species, disruption of biotic processes, and ultimately loss of ecosystem services and functions'[13].

Climate change presents an existential risk to central Australia's vulnerable and stressed arid and semi arid-environments. Therefore, it also presents an ongoing crisis for the pastoral estate and pastoralism across central Australia. In tandem with management techniques, the impacts of climate change will contribute substantially to compliance-related issues as the *Compliance Plan: Pastoral Land Act 1992. For management of the land resources. Consultation Draft* acknowledges[14]. ALEC sees an opportunity for the good governance principle of informed decision making to be applied around compliance and existing gaps such as around climate change impacts.

b. Fire

As detailed above, increased temperatures, more heatwaves and longer time spent in drought, combined with more erratic and variable rainfall result in a high likelihood that 'fire weather will become more frequent and harsher' in the Northern Territory[15]. The *Climate change in the Northern Territory: State of the Science and climate change impacts report* goes further stating that:

> 'in the southern and central parts of the Territory changes to fire frequency depend on rainfall changes. With higher temperatures and lower rainfall, climate change will result in a harsher fire-weather climate in the future; that is, when bushfires occur, more extreme fire behaviour can be expected'[16].

<u>Buffel grass and fire</u>

There has been research building for decades about the role of buffel grass in negatively impacting the ecology and biodiversity of arid and semi-arid landscapes in Australia and around the

[11] **Bergstrom, D, Wienecke, B, van den Hoff, J, Hughes, L, Lindenmayer, D, Ainsworth, T, Baker, C, Bland, L, Bowman, D, Brooks, S, and Canadell, J. 2021**. Combating ecosystem collapse from the tropics to the Antarctic. Global change biology, 27(9), pp.1692-1703.
[12] Ibid, p.1694.
[13] Ibid, p.1693.
[14] P.7, p.9
[15] CSIRO. 2020, p.21. 'Climate change in the Northern Territory: State of the science and climate change impacts'.
[16] Ibid.

world[17][18][19][20]. Buffel grass is a transformer weed of the Australian rangelands, where it outcompetes native grasses and then substantially alters habitat across entire landscapes. It is fire that is central to its invasion and destruction of the arid lands.

The presence of buffel grass substantially exacerbates the threat and impact of fire across Central Australia. Buffel grass fires have been directly and indirectly recorded to hit temperatures of 871℃ and 900℃ respectively[21], where spear grass burns to around 350℃[22]. It has a fuel load substantially greater than native grasses[23][24]. Buffel grasses ability to alter the fire regime ensures that it is a significant and direct threat to areas of high conservation value[25]. This is made worse that 'buffel grass has initiated a positive fire-invasion feedback' ensuring its expansion is enhanced by fire[26]. Buffel grass fires can destroy shrubs and large trees which may have significant ecological and cultural value. Buffel grass fires pose a significant threat across the pastoral estate.

Buffel grass is destroying large parts of Central Australia. Buffel grass has been identified as one of the key threatening processes in the arid and semi-arid zone with the Federal Government recommending states and territories declare buffel grass a weed[27][28]. New research has emphasised that buffel grass presents the greatest threat to arid-zone ecology, posing a greater risk than feral cats, foxes, rabbits, domestic and feral megafauna, other weeds and fire[29]. In the *Alice Springs Regional Weed Management Plan* buffel grass has been assessed as having a 'very high' weed risk and is one of only four 'weeds' in the region to be declared a 'priority weed for strategic control'[30].

---

[17] **Jackson, J, 2004.** *Impacts and management of Cenchrus ciliaris (buffel grass) as an invasive species in northern Queensland* (Doctoral dissertation, James Cook University).

[18] **Friedel, M, Puckey, H, O'Malley, C, Waycott, M, Smyth, A and Miller, G 2006**. Buffel grass: both friend and foe. An evaluation of the advantages and disadvantages of buffel grass use and recommendations for future research, Desert Knowledge Cooperative Research Centre, Alice Springs

[19] **Burquez-Montijo, A, Miller, M, Martinez-Yrizar, A, 2002**. 'Mexican Grasslands, Thornscrub, and the Transformation of the Sonoran Desert by. *Invasive Exotic Species in the Sonoran Region'*. Invasive Specieis in the Sonoran Region.

[20] **Read, J, Firn, J, Grice, A, Murphy, R, Ryan-Colton, E, and Schlesinger, C**, 2020. Ranking buffel: Comparative risk and mitigation costs of key environmental and socio-cultural threats in central Australia. *Ecology and Evolution*, *10*(23), pp.12745-12763.

[21] **McDonald, C & McPherson, G, 2013**. Creating hotter fires in the Sonoran Desert: buffelgrass produces copious fuels and high fire temperatures. *Fire Ecology*, *9*(2), pp.26-39.

[22] **Palin, M, 2014.** 'Gamba grass spreads throughout the Northern Territory'. NT News.

[23] Ibid

[24] **Beaumont, T, Keily, T, Kennedy, Simon, 2018.** 'Counting the cost: Economic impacts of gamba grass in the Northern Territory'.

[25] **Schlesinger, C, White, S,Muldoon, S, 201**3. Spatial pattern and severity of fire in areas with and without buffel grass (C enchrus ciliaris) and effects on native vegetation in central Australia. *Austral Ecology*, *38*(7), pp.831-840.

[26] **Miller, G, Friedel, M, Adam, P, Chewings, V, 2010, p.26**. Ecological impacts of buffel grass (Cenchrus ciliaris L.) invasion in central Australia–does field evidence support a fire-invasion feedback?. *The Rangeland Journal*, *32*(4), pp.353-365.

[27] **Department of Environment, 2015**. THREAT ABATEMENT ADVICE FOR ECOSYSTEM DEGRADATION, HABITAT LOSS AND SPECIES DECLINE IN ARID AND SEMI-ARID AUSTRALIA DUE TO THE INVASION OF BUFFEL GRASS (Cenchrus ciliaris AND C. pennisetiformis).

[28] **Godfree, R., Firn, J., Johnson, S., Knerr, N., Stol, J. and Doerr, V., 2017**. Why non-native grasses pose a critical emerging threat to biodiversity conservation, habitat connectivity and agricultural production in multifunctional rural landscapes. *Landscape Ecology*, *32*(6), pp.1219-1242.

[29] **Read, J.L., Firn, J., Grice, A.C., Murphy, R., Ryan-Colton, E. and Schlesinger, C.A., 2020**. Ranking buffel: Comparative risk and mitigation costs of key environmental and socio-cultural threats in central Australia. *Ecology and Evolution*, *10*(23), pp.12745-12763.

[30] **Department of Environment, Parks and Water Security, 2021, p.10**. Alice Springs Regional Weed Management Plan. Northern Territory Government.

We note that the role of buffel grass across the pastoral estate may be considered a contentious issue, but the pastoral estate is public land and the current approach is: contributing to ecosystem collapse; unsustainable; not contentious amongst the growing cohort of non-pastoral users on the pastoral estate (e.g. irrigated horticulture or aquaculture); at odds with the Department of Environment, Parks and Water Security's recognition that it is a 'weed for strategic control'; and, goes against the *Pastoral Land Act* 1992. S 4(b)(ii) states 'the objects of this Act are to provide for the prevention or minimisation of degradation of or other damage to the land and its indigenous plant and animal life' and 'to provide for the rehabilitation of the land in cases of degradation or other damage'[31] The Act defines degradation as:

> 'in relation to land, means a decline in the condition of the natural resources of the land, including the capacity of the land to sustain pastoral productivity, resulting directly or indirectly from human activities on or affecting the land'[32].

Natural resources of the land must include biodiversity and conservation-based values. S 4(a) emphasises that use of the land for pastoral purposes must be 'sustainable'. The general duties of pastoral lessees in Section 6 of the Act reaffirms this responsibility to proactively prevent land degradation and to operate sustainably. This is underlined in the Compliance Charter which is welcome[33].

When addressing compliance issues across the pastoral estate, fire is sure to impact land condition, resulting in land degradation and reduction in the 'natural resource of the land'. It is prudent that in developing this compliance framework, that the threat and risk of fire to compliance is considered and addressed. As buffel grass is central to fire issues across Central Australia and performs a similar risk as gamba grass in the Top-End, there is an opportunity to address the role these two 'weeds' play across the pastoral estate.

ALEC also notes when checking the Department's website and information around 'managing pastoral land' the resource for fire management *A review of fire as a pastoral management tool in central Australia* is 21 years old, from 2001[34].

c. Grazing pressure

Grazing pressure is central to land condition management. There is significant grazing pressure from stock, as well as other herbivores (kangaroos, goats, rabbits). It has been stated that 'throughout the history of pastoralism in the southern rangelands [of Western Australia], the combined grazing pressure of these unmanaged animals has nearly always been greater than that of domestic stock'[35].

The culling of dingoes across the pastoral estate may be increasing grazing pressure. It also has severe environmental implications as the dingo is a key apex predator across the arid and semi-arid zone and its presence has direct and indirect impacts on foxes, cats, rabbits, kangaroos and goats, as

[31] *Pastoral Land Act* 1992, p.5.
[32] Ibid. p.2.
[33] **Department of Environment, Parks and Water Security, 2021, p.7-8.** 'Compliance Charter'.
[34] Northern Territory Government. 'Managing pastoral land'.
[35] **Pollock, D., 2021, p.27.** Managing the unmanageable: reinstating the dingo for pastoral sustainability in Australian rangelands. *Proceedings of the Royal Society of Victoria*, *133*(1), pp.27-31.

well as a cascading impact on native flora and fauna[36][37][38]. This all impacts land condition. The presence of dingoes has some pastoralists proclaiming that dingoes are key to pastoralism in the arid zone being viable due to their role in regulating feral animals and improving land condition - they are key to sustainable pastoralism (e.g. Landholders for Dingoes)[39]. S 4(a) of the Act emphasises that the PLB has duty 'to provide a form of tenure of Crown land that facilitates the sustainable use of land for pastoral purposes and the economic viability of the pastoral industry'[40]. The sustained culling of dingoes may be going against the objects of the Act.

As previously reiterated ALEC holds concerns around dingo and 'wild dog' management in the Northern Territory. It has been found that 90-99% of wild dogs in the Northern Territory are purebred dingoes[41][42]. Thus it should be assumed that all wild dogs are in fact dingoes, not a feral animal. ALEC would like to reiterate that feral animals are described in the Act as 'an animal of a kind introduced into Australia since 1787 that is living in a wild state'. Dingoes are a protected species in the Northern Territory and have been present in Australia for at least 4000 years.

In addition to the fact that almost all wild dogs are pure bred dingoes, there is new research by the CSIRO in conjunction with the Department of Environment, Parks and Water Security that *lethal control reduces the relative abundance of dingoes but not cattle production impacts.*[43] Despite the management approach to wild dogs/ dingoes resulting in widespread baiting and culling across the pastoral estate, there is no perceived benefit for pastoralists. The use of 1080 remains highly deregulated in the Northern Territory with no evidence base supporting the widespread use of poisons across the arid lands.

Grazing pressure is a key process that results in the degradation of the pastoral estate which will result in issues around compliance. While focusing on stocking numbers is key, there is need for greater attention on grazing pressure from other herbivores. There is an opportunity to support the dingo in controlling and managing grazing pressure across the pastoral estate, aligning with scientific research and improving biodiversity and conservation outcomes in the process.

There is limited stocking rate guidance in the Northern Territory. This deficit of guidance threatens to degrade land condition as a result of overstocking. Overstocking is a key threat to the pastoral estate.

---

[36] **T. Schroeder, M. M. Lewis, A. D. Kilpatrick, and K. E. Moseby, 2015.** DINGO INTERACTIONS WITH EXOTIC MESOPREDATORS: SPATIOTEMPORAL DYNAMICS IN AN AUSTRALIAN ARID-ZONE STUDY, Wildlife Research 42(6), 529-539, (9 November 2015). https://doi.org/10.1071/WR15104

[37] **Newsome, T. Greenville, A. Ćirović, D. et al.2017.** TOP PREDATORS CONSTRAIN MESOPREDATOR DISTRIBUTIONS. Nature Communications..

[38] **Fisher, A, Mills, C. Lyons, M. Cornwell, W. Letnic, M, 2021**. REMOTE SENSING OF TROPHIC CASCADES: MULTI-TEMPORAL LANDSAT IMAGERY REVEALS VEGETATION CHANGE DRIVEN BY THE REMOVAL OF AN APEX PREDATOR. Landscape Ecol 36, 1341–1358. https://doi.org/10.1007/s10980-021-01206-w

[39] Pollock, D., 2021. Managing the unmanageable: reinstating the dingo for pastoral sustainability in Australian rangelands. *Proceedings of the Royal Society of Victoria*, *133*(1), pp.27-31.

[40] *Pastoral Land Act* 1992. p.5.

[41] **Cairns, Kylie & Crowther, Mathew & Nesbitt, Bradley & Letnic, Mike, 2021.** THE MYTH OF WILD DOGS IN AUSTRALIA: ARE THERE ANY OUT THERE?. AUSTRALIAN MAMMALOGY.

[42] **Northern Territory Government**. Wild dogs. Accessed 14th March 2022.

[43] **Edwards, G.P., Eldridge, S.R., Shakeshaft, B.J. and Nano, T., 2021**. Lethal control reduces the relative abundance of dingoes but not cattle production impacts. *Wildlife Research*.

Good governance requires contemporary, accessible and place-based information pertaining to threatening processes and best practice land management. This is necessary for leaseholders to manage their land and for the PBL to be comprehensive and effective in their approach.

d. Criteria for assessing land condition

The criteria for assessment of land condition through monitoring is outdated and is contributing to the degradation of 'natural values'. The criteria used in the most recent PLB Annual Report has been provided in *Figure 3*. It emphasises the simplistic and reductive way in which land condition is assessed, where non-cleared land ensures that land condition is rated poor, significant pockets of woodland or shrubland persist.

We note that the Compliance Plan in the Compliance Framework acknowledges land condition from a natural resource management perspective as well as a pastoral context. This is a welcome change in rhetoric. However, it is imperative that this is translated across into assessment, monitoring and compliance policies, plans and programs.

Land Condition	Soil	Pasture	Weed	Woodland and Shrubland
A (= Excellent) All of these features	No erosion and good surface condition	Good coverage of palatable perennial grasses in the north and annual forage species in the south, minimal bare ground in most years	No weeds	No signs of woody thickening
B (= Good) At least one or more of these features	Minimal evidence of previous erosion or of current erosion risk	Some decline in the presence of palatable grasses and other forage species, a small increase in bare ground	Small infestations of weeds	Some thickening in the density of woody plants
C (= Fair) One or more of these features	Evidence of past erosion and/or current susceptibility to erosion	General decline in palatable perennial and annual grasses, obvious increase in the amount of bare ground	Obvious presence of weeds	General thickening in the density of woody plants
D (= Poor) One or more of these features	Severe erosion, scalding or compaction resulting in a hostile environment for plant growth	General lack of palatable forage species	Large weed infestations covering significant areas	Thickets of woody plants that cover significant area

Figure 3. Land condition criteria in the Northern Territory 2019-20 Pastoral Land Board Annual Report

If extra effort is going to ensure that compliance is done comprehensively and appropriately, but the underlying conditions for what is assessed remains as is, there will be negligible improvements in the health of the pastoral estate. As the Compliance Plan states:

> 'It is important to recognise both contexts [natural resource management and pastoral] in relation to the land use activities and management practices that may occur on pastoral land

– including for both pastoral purposes and non-pastoral purposes – because the NRM context will increase with land use diversification'.[44]

Conservation and biodiversity must also be recognised as important values for the pastoral estate and integrated into criteria assessments for land condition. South Australia is a useful example of a jurisdiction that places significantly more emphasis on conservation as being a part of the pastoral estate.

e. A siloed approach to compliance

By adopting a bioregional approach to land management, the PLB can establish its priorities across each bioregion to ensure land condition is maintained and improved and compliance is upheld. The pastoral estate represents a mosaic of pastoral properties that intersect across different regions and ecologies. Together they account for nearly half of the Territory's land mass. It is critical that the pastoral estate is considered more holistically, rather than adopting only a fragmented, lessee, property scale approach. A bioregional approach is appropriate for monitoring compliance at a regional scale, as well as for monitoring specific areas of compliance such as land clearing[45]. This approach would assist the PLB to limit land degradation and preserve the natural resources of the land as required under the Act.

A bioregional approach strengthens baseline understanding of the capacity of the land. This has direct implications for pastoralism, where a bioregional approach fosters the parameters that are required to operate sustainably and then support economies to function within these limits. This approach will enable the PLB to better characterise the state of land condition across the Northern Territory's pastoral estate.

By adopting a bioregional approach, alternative economies on the pastoral estate can be planned for and realised. For example regions of high ecological value and limited pastoral value can become conservation areas. Newhaven Wildlife Sanctuary provides an excellent example of what conservation opportunities exist upon the pastoral estate in the Northern Territory. Newhaven is a tourism destination, has created job opportunities, promotes research into the Territory's natural capital and has achieved remarkable conservation outcomes. A bioregional approach can ensure that coordinated planning around conservation across the pastoral estate can be realised. Conservation is an extremely exciting opportunity for the PLB.

ALEC holds significant concern that cumulative impacts are not considered around compliance issues upon the pastoral estate.

f. Membership and qualification of the Pastoral Land Board

Major reform of compliance can only be achieved if there is trusted, balanced and competent oversight of the pastoral estate. The current make-up of the PLB is clearly not well balanced with pastoralists and ex-pastoralists making up the majority of members of the Board. These stakeholders alone meet the quorum requirements. Regardless of intent, this perception alone that one interest group has complete authority over the decision making of 45% of the Territory's land mass, should

[44] **Department of Environment, Parks and Water Security, 2021, p.7**. 'Compliance Plan.

[45] Environmental Defenders Office: A Biodiversity Conservation and Land Management Act for the Northern Territory.

be cause for major concern. An urgent review of the PLB's governance arrangements is necessary to overcome this barrier. It remains unclear how conflicts of interests are managed where decisions made by the PLB influence lease prices across the pastoral estate.

Table 1. Northern Territory, Western Australia and South Australia pastoral land board comparisons

	Northern Territory	**Western Australia**	**South Australia**
Appointed by	Minister (S 12 *Pastoral Land Act* 1992)	Minister (S 97 of the *Land Administration Act* 1997)	Minister (S 12 *Pastoral Land Management and Conservation Act* 1989).
Size of Board	S 12(1) - At least 5 members	S 97(1) - 8 members	S 12(2) - 6 members
Membership of the Board	S 13 2 persons who have experience as pastoralists As far as practicable, the members collectively have expertise or experience that, in the opinion of the Minister, is relevant to their role as members	S 97(1) 3 are persons who hold or have held an interest in a pastoral lease or are, or have been shareholders in a company with beneficial interest in a pastoral lease One is the CEO of the department principally assisting in the administration of the *Biosecurity and Agriculture Management Act 2007* One is the CEO of the Department of Planning, Lands and Heritage One person has expertise in flora, fauna or land conservation management One person is an Aboriginal person with experience is pastoral leases A chairperson	S 12(2) One person with wide experience in administration of pastoral leases One person wide knowledge of the ecology and experience in management of pastoral land (Minister for Environment and Heritage). One person with wide experience in the field of land and soil conservation of pastoral land (Minister for Primary Industries, Natural Resources and Regional Development). One person who produces beef cattle on pastoral land, nominated by Livestock SA. One person who produces sheep on pastoral land, nominated by South Australian Farmers Federation. One person who has been nominated by the Conservation Council of South Australia.
Deputy/ alternate Membership	S 15 - The Minister may appoint alternate members	S97(2) - THe Minister may appoint a deputy member with the same qualifications, where the deputy may take the place of the member to whom they are deputy at any meeting of the Board where the member is not present.	S 12(5) - The Minister must appoint a deputy to each member of the Board. Each deputy must be appointed in the same manner as the member was appointed to the Board. A deputy may, in the absence of the member, act as a member of the Board.
Quorum	3	5	4
Period of appointment	S 14 - 4 years, and eligible for re-appointment at the end of the term.	S 97(4) 3 years, and may be re-appointed	S 13(1) - 3 years, and is eligible for reappointment at the end of the term.

It is critical that membership and criteria of the PLB is updated to ensure membership is based on merit and is balanced reflecting the diversity of perspectives and interests upon the pastoral estate. The requirements for membership in the Northern Territory are vague and pastoralist centric, where pastoralists are the only sectors singled out for membership under the Act. The Pastoral Land Boards in South Australia and Western Australia emphasise the need for expertise across a range of different areas. In the Northern Territory expertise is only required 'as far as practicable' and even then 'the

Board is not bound by rules of evidence but may inform itself in such manner as it thinks fit'[46]. Considering the prevalence of conservation, native title and non-pastoral use activities across the pastoral estate, it is appropriate that membership is modernised to reflect these other perspectives.

g. Land clearing

The ongoing large-scale land clearing of the pastoral estate presents a major issue for biodiversity values in the Northern Territory. Land-use change is one factor contributing to ecosystem collapse across the Territory's arid and savannah environments[47]. Land clearing is one of the three priority areas for the PLB around compliance. ALEC notes that in 2019-2020, the PLB approved 23 land clearing applications and one was deferred.

It is vital to understand that the Northern Territory is plagued by a research deficit with limited baselines and monitoring programs. This extends into our understanding of threatened species and ecological communities. With limited understanding of the health of the Territory's ecosystems beyond broad-scale decline, a fragmented approach to land clearing will ensure that further stress is placed upon the Territory's natural environment.

h. Recommendations

Recommendation 1: It is necessary that there are contemporary resources and fact sheets alongside the Compliance Framework so the PLB can fulfil their functions around compliance, and landholders are informed. This supports the good governance principle of informed decision making and that the PLB is comprehensive and effective in their approach.

Recommendation 2: There are major gaps in what information is available for leaseholders around key factors influencing land condition, including around: climate change, buffel grass and dingo management. These key factors influencing land condition need to be acknowledged by the PBL. The Department should develop appropriate resources and factsheets to be provided alongside the compliance framework to leases.

Recommendation 3: Develop a stocking rate policy for the Northern Territory.

Recommendation 4: A new criteria for land condition is created which integrates natural resource management (with emphasis on conservation and biodiversity) and pastoral land management values.

Recommendation 5: A review of the *Pastoral Land Act 1992* (NT) is conducted by the Northern Territory Auditor General, with a specific focus on the governance arrangements of the pastoral estate and the functions of the Pastoral Land Board.

---

[46] *Pastoral Land Act* 1992, p.7, p.12.

[47] Bergstrom, D, Wienecke, B, van den Hoff, J, Hughes, L, Lindenmayer, D, Ainsworth, T, Baker, C, Bland, L, Bowman, D, Brooks, S, and Canadell, J. 2021. Combating ecosystem collapse from the tropics to the Antarctic. Global change biology, 27(9), pp.1692-1703.

Recommendation 6: Natural resource management values need to be acknowledged and integrated into governance of the pastoral estate and supported by transparent decision-making.

Recommendation 7: Develop a framework for bioregional assessments and compliance.

Recommendation 8: Embed cumulative impact considerations into the Compliance Framework.

Recommendation 9: Conducting extensive research and developing comprehensives baselines is key to good natural resource management. Good governance around land clearing requires impacts to be understood and management to be strategic and coordinated.

4. Compliance Framework

a. Compliance principles

These principles have been communicated effectively. This has been expanded upon considerably since the first draft. ALEC welcomes the additional clarification around environmental duties and obligations around sustainability, the 'health of the land and the emphasis that 'the Territory's pastoral estate is a public asset and sustainable management of its natural capital is critical'[48].

b. Compliance priorities

ALEC welcomes the three areas around compliance that have become the PLB's priority action area. These priority action areas align with key factors identified in Section 3.

ALEC strongly supports that 'consent for clearing of native vegetation will not be given retrospectively and appropriate penalties will apply'[49]. This sends a strong signal that compliance activities are being taken seriously, and prosecuted accordingly.

While ALEC welcomes land in D (poor) condition in principle to be required to 'develop and implement a non-statutory Recovery Plan or a statutory Remedial Plan or as otherwise directed by the Board', we have concern about this in practice. As emphasised in Section 3 (d) of this submission, the current criteria for assessing land condition is problematic and results in the ongoing destruction of habitat[50].

ALEC supports serious land degradation and erosion issues being referred to the Commissioner for Soil Conservation, and similarly that serious weed issues will be referred to the Weed Management Branch. Resourcing is always a major issue around monitoring and assessment. It is vital that these divisions have adequate resourcing to ensure serious land degradation issues can be resolved.

ALEC strongly supports the annual stock return for this year. We emphasise the importance of a stocking rate policy to be developed by the PLB. Stocking rates are central to issues around land condition and degradation. A failure to develop this policy would constitute policy failure upon the Northern Territory pastoral estate.

[48] **Department of Environment, Parks and Water Security, 2021, p.8**. 'Compliance Policy'.
[49] Ibid, p.9.
[50] Ibid.

c. Ethical practice

ALEC supports the establishment of a permit auditing program and the development of a complaints management process. ALEC welcomes that matters related to the permit auditing program will be published publicly.

d. Accountability

This section has become far clearer in the updated draft.

ALEC welcomes the development of Compliance Register Register, a Decision Register and land register. Record keeping is key to building trust. ALEC reiterates that access to these registers should be publicly available.

ALEC strongly supports the development of an annual pastoral compliance report card. This is a very welcome addition to the updated draft.

ALEC welcomes the development of a compliance sub committee as part of the PLB.

ALEC recommends that decision making by the PLB is evidenced based and supported by best practice approaches. The criteria for assessing land condition, and the continued slaughter of dingoes through the use of 1080 baitings stand out as two areas which are not supported by an evidence base.

e. Engagement

ALEC welcomes the Board developing a stakeholder stakeholder engagement strategy and that the Board intends to be a 'conduit for ministerial advice and policy reform with regard to management of the pastoral estate's land resource'.

ALEC considers it vital that the compliance framework receives widespread feedback from native title holders across the Northern Territory. It is integral that these perspectives are integrated into compliance of the pastoral estate.

f. Land degradation

In understanding what land condition is, we welcome the way natural resource management values have been emphasised as well as pastoral values. It is integral that this is integrated into assessment, monitoring and compliance of the pastoral estate.

Very clear.

g. Lease conditions

Very clear.

h. Feral animal control

There are opportunities to learn from other jurisdictions around feral animal control. A major review of the Western Australian Pastoral Lands Board occurred by the Western Australia Auditor General in 2017. Around feral animal management and the monitoring responsibilities it stated:

> ‘the current monitoring system does not include a range of factors that impact on land condition throughout the year despite a requirement in the LA Act for the PLB to monitor these factors. For example, the abundance and impact of foxes, wild dogs and dingos, particularly in the Southern Rangelands, is not measured. Total grazing pressure from livestock and native and introduced herbivores such as kangaroos, feral goats and donkeys is also not considered by the PLB. Assessing these factors is important to understand how land condition changes and what can be done to improve it. Comprehensive monitoring is possible but is resource-intensive’[51].

It is the duty of the PLB in the NT to ‘provide for the monitoring of the pastoral land so as to detect and assess any change in its condition’, in addition to prevent and minimise land degradation.

It is welcome that feral animal data will be required as part of an annual stock return.

With limited monitoring a major issue for the health of the pastoral estate. This is despite the fact that lessees are not required to manage feral animals if the PLB does not make a feral animal declaration in their district. The only feral animal declaration made by the board was regarding donkeys and horses in the Victoria River District in 1999. Without any declarations, feral animals do not have to be managed. Without any monitoring, it is unlikely that the PLB will make a declaration. It is essential that the PLB develop a framework, plan and program for monitoring feral animals across the pastoral estate.

Recommendation X: Ensure that data relating to the feral animal register is publicly available.

i. Pastoral land clearing

Policies and plans around pastoral land clearing should be evidenced based and balanced in considering the perspectives of the pastoral and natural resource management contexts.

j. Supporting a culture of compliance

Very clear.

k. Stocking rates

Welcomes annual stock register, but ALEC emphasises the urgent need for a stocking rate policy in the Northern Territory to be developed.

l. Compliance process

Very clear.

5. Conclusion

ALEC welcomes the positive steps forward made by the PLB, particularly around their priority areas for compliance. In addition, ALEC supports major improvements around reporting and the establishment of multiple registers. There is significant opportunity for the PLB to make significant contributions to the health and quality of land condition and the natural resources of the land. Overall, the Compliance Framework is thorough and well communicated.

[51] Western Australian Auditor General’s Report: Management of Pastoral Lands in Western Australia. p.16-17

An effective approach to compliance is dependent on good governance approaches. Good governance is fostered through access to contemporary and relevant information in relation to key threatening processes to the pastoral estate and best-practice land management. This is necessary for leaseholders to manage their land and for the PBL to be comprehensive and effective in their approach.

This Compliance Framework creates a platform for a considerable portfolio of future work. ALEC stresses key areas that should be prioritised to ensure good governance and management of the pastoral estate is achieved. Key areas of focus are: climate change, fire and buffel grass, grazing pressure and the role of the dingo, the criteria for land condition assessments, the membership of the PLB, the adoption of a bioregional approach and land clearing. We provide clear recommendations on how governance arrangements can be improved.

Kind regards,

Alexander Vaughan
Policy Officer

Appendix A: Key conclusions from the Intergovernmental Panel on Climate Change report *Climate Change 2022: Impacts, Adaptation and Vulnerability*

New reporting by the Intergovernmental Panel on Climate Change (IPCC) is very clear on how Australia will be impacted by climate change. Most notably that[52]:

1. 'Ongoing climate trends have exacerbated many extreme events (very high confidence)';
2. 'Climate trends and extreme events have combined with exposure and vulnerabilities to cause major impacts for many natural systems, with some experiencing or at risk of irreversible change in Australia (very high confidence)';
3. 'Climate trends and extreme events have combined with exposure and vulnerabilities to cause major impacts for some human systems (high confidence)'. E.g. extreme heat, flooding, impacts upon sacred sites;
4. 'Climate impacts are cascading and compounding across sectors and socio-economic and natural systems (high confidence). Complex connections are generating new types of risks, exacerbating existing stressors and constraining adaptation options';
5. 'Increasing climate risks are projected to exacerbate existing vulnerabilities and social inequalities and inequities (high confidence)';
6. 'Further climate change is inevitable, with the rate and magnitude largely dependent on the emission pathway (very high confidence)';
7. 'Climate risks are projected to increase for a wide range of systems, sectors and communities, which are exacerbated by underlying vulnerabilities and exposures (high confidence)';
8. 'There are important interactions between mitigation and adaptation policies and their implementation (high confidence)'.

These challenges and solutions have been identified:

9. 'The ambition, scope and progress of the adaptation process has increased across governments, non government organisations, businesses and communities (high confidence)';
10. 'Adaptation progress is uneven, due to gaps, barriers and limits to adaptation, and adaptive capacity deficits (very high confidence)';
11. 'A range of incremental and transformative adaptation options and pathways is available as long as enablers are in place to implement them (high confidence)';
12. 'New knowledge on system complexity, managing uncertainty and how to shift from reactive to adaptive implementation is critical for accelerating adaptation (high confidence)';
13. 'Aboriginal and Torres Strait Islander Peoples and Tangata Whenua Māori can enhance effective adaptation through the passing down of knowledge about climate change planning that promotes collective action and mutual support across the region (high confidence)';
14. 'A step change in adaptation is needed to match the rising risks and to support climate resilient development (very high confidence)';
15. 'Delay in implementing adaptation and emission reductions will impede climate resilient development, resulting in more costly climate impacts and greater scale of adjustments (very high confidence)'.

[52] Intergovernmental Panel on Climate Change, 2022, p.3-6. 'Chapter 11: Australasia'. IPCC WGII Sixth Assessment Report.