

SUBMISSION TO:

Vegetation Management and Other Legislation Amendment Bill 2018

From: Bruce Collins OAM, retired beef producer, past Mayor Winton Shire.

Dear Sirs

I respectfully request that you consider my submission following.

Introduction

The legislation appears to be based on a perception by government and a well-meaning but largely ignorant public, subject to constant alarmist propaganda by activist green groups, that trees are disappearing from the pastoral and agricultural lands of Queensland. It is also taken as a given that trees protect soils against erosion while pasture does not.

Both assumptions are incorrect and in much of Australia would not stand up to a rigorous analytical investigation. However the facts of life today are that almost all research into natural systems is more a form of advocacy than true research. Governments fund much of the research into natural systems today and unfortunately that comes with a given that a certain preferred ideological result is desirable. Universities, likewise, accept funding from activist groups like WWF, potentially compromising the independence of their research.

I make the point that one of the fundamentals of soil conservation in farming lands accepted and applied for over two hundred years is the use of **grassed** waterways to safely divert runoff away from susceptible land, thereby acknowledging the effect that grass has in binding soils and protecting from erosion. as opposed to tree cover.

Background

After growing up on *Spring Creek* station (Approx. 18°37'S 144°37'E), a property of diverse soil types and ecosystems in the Einasleigh Uplands of north Qld, I studied Rural Science at UNE and worked in the Beef industry as an agronomist for twelve months before returning to the family property in 1967.

Up to the time I left *Spring Creek* (1973) mustering there was done almost entirely on horseback or with the use of a fixed wing aircraft for spotting, especially in the basalt and more heavily timbered country.

As part of management at *Spring Creek*, strategic or mosaic burning, by annually lighting up sections of older grass after each wet season was an established practice. This deliberate fuel reduction helped reduce the incidence of hot fires over the summer. Never-the-less, grass fires of varying intensity, especially in the less accessible basalt country, were often experienced.

In 1973 I moved to a property, *Daintree*, on the Mitchell grass downs country east of Winton, where management of unwanted woody vegetation was not a problem. However,

in ensuing years, as part of family partnership operations, I made at least annual visits to *Spring Creek*, and noticed over time an incursion and thickening of young Eucalypts.

Twenty years later, no attempt would be made to muster any paddock on *Spring Creek* without the use of a helicopter to assist horsemen for it was no longer possible for a rider on horseback to see much further than 100 to 200m (except in the open black soil country). As time has progressed the thickening has continued and the landscape has been altered significantly to become a forest rather than a grassland.

In 1994 the family purchased another property, *Mulgrave*, in the Barcaldine district, that had clearly been subject to major encroachment by Gidyea (*Acacia cambagei*) over a period of many years. After improving the carrying capacity of that property significantly by pulling areas of Gidyea scrub (that had apparently formed since the early 1900s), the property was sold in 2002 to facilitate a partnership restructure.

In addition, I have had some experience of Mulga lands on properties, one east of Wyandra and the other north of St George where I had cattle on agistment for a period of time in the mid to late 1990s.

In 2005, another property, *Cathedral*, was purchased north-west of Winton. This property has suffered over a long period of time, and continues to suffer, from serious encroachment of its grasslands by Gidyea.

With the benefit of scientific training and fifty years of successfully managing pastoral properties in several different ecosystems, which has involved focused observations regarding cause and effect, I believe I am in a position to make some constructive comment on past and proposed Government policies concerning vegetation management.

Observations

1. Australia has evolved for the last few hundred thousand years, at least, under a regime of frequent fire. The presence of Eucalypts over the entire continent including Tasmania proves this by their common feature known as a ligno tuber in all species of this genus. A ligno tuber allows the storage of energy in its root system just below ground level and this energy store facilitates recovery after hot fires.
2. Much of Queensland has been subject to vegetation thickening over the last one hundred years. I make this statement not only on my observations, but also on those of other experienced property owners, bushmen and on the diaries of the early explorers and pioneers.
3. This thickening can be attributed to a combination of the following:
 - a reduction in the frequency and severity of bush fires and an increase in total stocking pressure. Eucalypt and Acacia seedlings are vulnerable to a hot fire whilst young.
 - Supplementary feeding of cattle since the 1970s has allowed better usage of low quality forage and consequently more livestock to be carried, reducing the fuel load for fires.

- The establishment of more watering points has made available previously unstocked country for grazing on most properties in the pastoral zone. At the same time, better water availability promotes an increase in the number of kangaroos and other macropods, increasing the total stocking pressure.
- 4. Gidyea, as it thickens, often becomes a monoculture, crowding out grasses, resulting in no understory vegetation or pasture present. Such an ecosystem can only be a negative for preserving biodiversity and it should be recognised as such.
- 5. Once Gidyea begins to invade a Mitchell grass pasture (Image 1) it becomes an almost unstoppable process, for the adult trees provide cover for kangaroos to rest through the day and then venture out at night only as far as they need go to graze. Consequently, the pasture is very quickly consumed close to the treeline and the new seedlings are very effectively protected from fire by the kangaroos' grazing habits.



Image 1: A lone Gidyea 'Mother Tree' with young (approx. 2 years of age) seedlings in Mitchell grass pasture. Cathedral station Winton April 2016.

This small thicket will, over time expand when conditions for germination and establishment are favourable and gradually take over the immediate area. In this way thousands of hectares of productive grassland have been rendered useless by encroachment.

Purpose of the Act

(1) The purpose of this Act is to regulate the clearing of vegetation in a way that—

(a) conserves remnant vegetation that is—

(i) an endangered regional ecosystem; or

(ii) an of concern regional ecosystem; or

(iii) a least concern regional ecosystem; and

(b) conserves vegetation in declared areas; and

(c) ensures the clearing does not cause land degradation;

and

(d) prevents the loss of biodiversity; and

(e) maintains ecological processes; and

(f) manages the environmental effects of the clearing to achieve the matters mentioned in paragraphs (a) to (e);

and

(g) reduces greenhouse gas emissions; and

(h) allows for sustainable land use.

Outcomes

As this legislation can so severely impact on landholders it is important that it is effective in delivering the outcomes as defined by the purposes of the act that has now been in place with some tightening of the screws since 1989. How has it served us:

a) **conserves remnant vegetation** Remnant vegetation is undoubtedly surviving in many areas to the extent that it can no longer be fairly described as “remnant”. However, the legislation has created a new generation of endangered regional ecosystems.

c) **ensures the clearing does not cause land degradation** By preventing rural landholders from cost effectively controlling the rapid thickening of vegetation discussed earlier, the legislation is in fact leading to land degradation, contravening clause (c). Compare the differences in Images 2 and 3 after 63 years.

d) **prevents the loss of biodiversity** Gidyea thickening, as a side-effect of the legislation is producing a loss of habitat for a large number of ground dwelling birds and small animals. By disallowing property owners the ability to cost-effectively clear encroachment and thickening, the legislation actively **promotes a loss of diversity** due to the loss of habitat for a large number of ground dwelling birds and small animals. Singing Bushlarks, Quail, Budgerigars and Flock Bronzewing pigeons are just some of the birds so affected by

disappearing Mitchell grassland. The threatened Julia Creek Dunnart is one of a number of small native mammals also impacted by loss of habitat. The Department of Environment and Heritage Protection website states that, "*Prickly acacia (Acacia nilotica), mesquite (Prosopis spp.) and parkinsonia (Parkinsonia aculeata) are a major threat to the biodiversity in the Mitchell Grass Downs. Prickly acacia shades out understorey plants, and its extensive root system inhibits the cracking of clay soils (that is an important dunnart habitat).*"

https://www.ehp.qld.gov.au/wildlife/threatened-species/endangered/endangered-animals/julia_creek_dunnart.html

The website goes on to say, "*The recovery plan for the Julia Creek dunnart (External link icon) suggests that maintaining areas which support suitable habitat has the greatest potential for conserving wild populations.*"

While no studies have been carried out, it is highly likely that a dense population of Gidyea would result in a very similar outcome to that produced by Prickley Acacia. Consequently, the uncontrolled spread of Gidyea into the Mitchell grass downs should be identified as a similar threat to biodiversity generally, and especially to the Julia Creek Dunnart.

It is an indictment of policy for one arm of government to spend public funds protecting the habitat of an endangered species whilst another arm of the same government adopts policies that are in direct opposition to that outcome.

g) ***reduces greenhouse gas emissions*** When vegetation is thinned/cleared/pulled the modified ecosystem behaves like a carbon store and does not suddenly turn into a source of CO₂ unless burned. The fallen vegetation is usually left on the ground to rot and returns carbon to the soil for a number of years (a highly recommended activity), during which time the area is returned to pasture, which not only takes up CO₂, but produces a return in meat or wool for a number of years.

h) ***allows for sustainable land use*** The legislation has not achieved this. The thickening I observe from rural roads over a large part of Queensland tells me that the **legislation is failing**. If this is to be reversed, property owners must be allowed to use cost effective methods of thinning and other means of redress.



Image 2: Lake Nash bullocks on the Stockroute near the Twenty Mile Hotel 33km west of Winton, 1952. Note the open grassland with a few scattered trees. (Photo C Phillott)



Image 3: *Senator James McGrath inspecting Gidyea encroachment and thickening near the site of the old Twenty Mile Hotel and Dam on the Stockroute 33km west of Winton, April 2015. Note the dense vegetation and total absence of grass.*

In ecosystems in the drier inland, it is the ground cover of pasture that is critical to maintaining stability of the soil surface and resisting soil erosion. As Eucalypt and Acacia communities thicken the young, shallow-rooted trees compete directly with pasture for moisture. In dry times this leads to a lack of effective ground cover and bare soils can be impacted by heavy rain leading to severe erosion.

In this situation tree cover does not reduce erosion. It exacerbates it.

Consequently, this outcome as a result of State Government policy, in much of the Burdekin and Herbert River catchments will be directly opposite to that which it is promoting. i.e. the very stringent controls flagged by this legislation could lead to more, rather than less sediment being flushed into the Great Barrier Reef by the Burdekin and Herbert rivers, in particular.

The number of immature stems compared to matures tells the story of what is happening in Eucalypt communities in the Burdekin River catchment. It is difficult to describe it other than as “land degradation”. A very similar scenario greets the motorist travelling the 380km along the Kennedy Developmental road between Hughenden and Mount Garnet. Once highly productive land is being steadily degraded by an explosion of native vegetation.



Image 4: *Eucalypt thickening west of Pentland, with an older seed tree in the foreground, taken from the Flinders Highway, April 2016.*

There is no doubt that if steeply sloping land in the wet tropics is cleared of the existing rain forest, severe erosion is highly likely, so very tight controls on development of such land is justified, but to apply very similar controls where it is not justified is leading to a very poor environmental outcome for Queensland.

Recommendations

Government legislation to facilitate cost-effective measures to protect grasslands against the invasion by native vegetation is essential if Queensland is to have a robust and viable pastoral industry with the attendant investment and employment opportunities flowing through to rural towns and communities.

Any legislation that ties property owners up in red-tape is counterproductive. A permit to thin or clear vegetation should not be limited to a short time frame because quite often seasonal conditions and market movements can alter the ability of the individual to make the necessary expenditure.

Rural landholders should be allowed to utilise two machines and a chain, subject to certain conditions, to clear regrowth and vegetation incursion as in many situations this is by far the most cost effective method of treatment.

On grazing properties it should be giving property owners the tools and incentives to maintain healthy ecosystems in concert with profitable operations that contribute to the state and national economies.

Bruce Collins

20/03/2018