Submission to the inquiry into the Vegetation Management and other Legislation Amendment Bill 2018

To the Queensland Parliament's State Development, Natural Resources and Agricultural Industry Development Committee

By email to sdnraidc@parliament.qld.gov.au

From Dr Martin Taylor, St Lucia, Queensland, email:

Dear Chair and Committee Members,

This submission is made as a private citizen of the state of Queensland, not on behalf of any organisation and the views expressed here are my own.

Summary

The *Vegetation Management and other Legislation Amendment Bill 2018* (VMOLA) is supported because it is sure to turnaround the rising tide of destruction of native bushland habitat in Queensland. VMOLA would end high value agriculture as an allowable clearing purpose, clampdown on the so-called "thinning" loophole, tighten the fodder code, clampdown on Area Management Plans and expand definitions of high value regrowth (Category C) and Reef watercourse regrowth (Category R) which would see over a million hectares of currently exempt areas brought under regulatory controls.

I urge the committee to advocate for further strengthening of the VMOLA Bill to close significant remaining loopholes that will impede the delivery of the government's historic election promises on tree clearing as laid out in the *Saving habitat* policy and related documents and statements.

In particular, remove thinning and fodder harvest with bulldozers as allowable clearing purpose and activity respectively under the Act, remove provisions for Area Management Plans and end all plans, remove accepted development code clearing provisions and return self-assessment provisions to leading practice, halt the locking in of exemptions on property maps, institute annual revisions of regulatory maps, fully implement the promise for protection of high conservation value regrowth and provide for protection of native wildlife against harm due to clearing activities.

Background

Broken promise

The *Vegetation Management Act* (VMA) in Queensland is no longer fit for purpose, as a result of the former Newman-LNP government, in their words, "*Taking the axe to Queensland's clearing laws*" in 2012-13[1] after breaking a solemn election promise that *'The LNP will retain the current level of statutory vegetation protection'*. [2]

The Statewide Land and Tree Study reports (SLATS) show that areas bulldozed annually have since resurged dramatically with correspondingly inevitable negative impacts on native bushland, our irreplaceable Great Barrier Reef and our native wildlife contrary to the stated purposes of the Act to conserve remnant vegetation (i.e. mature forest or woodland) and to prevent loss of biodiversity.

Areas or mature bushland destroyed annually have increased 5-fold in as many years, from a low ~26,000ha in 2010-11 to ~138,000 ha in 2015-16, the latest year for which data are available. In the same period, bulldozing of regrowing forest and woodland, nearly quadrupled from ~66,000 to ~257,000 ha.

The impacts on Queensland wildlife and biodiversity have been correspondingly dramatic. An estimated 45 million reptiles, birds and mammals were killed by bulldozing of their habitats in 2015-16, including over 1000 koalas.[3] Escalating bulldozing of habitats also includes 12,211 ha cleared within 50m of a Great Barrier Reef watercourse or wetland; 70,648 ha cleared of nine listed endangered or critically endangered ecological communities (TECs); and habitats cleared for 115 threatened species under Commonwealth law, none of which has been referred or approved under that law.[4]

[1] https://www ruralweekly.com.au/news/changes-will-take-axe-to-clearing-laws/1851306/
[2] https://www.parliament.qld.gov.au/documents/committees/SDIIC/2013/10-VegetatationMgmtFramewk/submissions/057.pdf
[3] http://www.wwf.org.au/ArticleDocuments/353/pub-australian-animals-lost-to-bulldozers-in-queensland-2013-15-25aug17.pdf.aspx and http://www.wwf.org.au/ArticleDocuments/360/pub-koalas-lost-to-bulldozers-in-queensland-2010-16-22nov17.pdf.aspx
[4] http://www.wwf.org.au/ArticleDocuments/360/pub-briefing-pervasive-inaction-on-national-conservation-law-over-tree-clearing-14jul17.pdf.aspx?Embed=Y

New promise

At the November 2017 election, the present government has promised to[5]

> introduce legislation to protect remnant and high conservation value non-remnant vegetation.
>
> "High conservation value" will be defined consistently with the international definition advocated by the High Conservation Resource Network, including (but not limited to) endangered vegetation species and communities, vegetation in reef catchments, riparian areas, threatened species habitat and areas where landscape integrity is at risk.

Major loopholes behind most clearing

To meet the election commitment and to fulfil the stated purposes of the Act, the proposed *Vegetation Management and Other Legislation Amendment Bill 2018* (VMOLA hereafter) must amend the Act to close the major loopholes responsible for most clearing of remnant and high conservation value regrowth, which are:

- High Value Agriculture approvals made under the *Planning Act* (HVA)
- Exemptions of four major types
    - Accepted Development (formerly Self-assessable) code-based clearing whereby clearing if it follows a code and prior notice given is exempt from the normal process of assessment and approval (ADC).
    - Area Management Plans (AMPs) code-based clearing, under which, if clearing follows Plan codes and if prior notice is given, it is exempt from assessment and approval.
    - Clearing in areas mapped Exempt on the statewide regulatory map (X on RVM, Fig 1).
    - Clearing in areas locked-in exempt on property maps of assessable vegetation (X on PMAV, Fig 1).

[5] https://www.queenslandlabor.org/media/20226/alpq-saving-habitat-policy-document-v3.pdf

A simple GIS intersection of areas mapped as cleared (excluding natural tree death) from 2013 to 2016 from the Statewide Land and Tree Study or SLATS with the official regulatory map as it was in 2014, shows the following breakdown of the regulatory category of areas cleared (Fig 1).

Only 36.7% of all clearing was of regulated bushland, mostly in category B (remnant), with a small component of C (high value regrowth) and R (regrowth in Reef watercourse buffers). The remaining 63.3% was exempt. Half of all clearing was of bushland "locked-in" exempt on a property map (the current VMA sections 20B and 20D greatly constrain the circumstances under which a property map may be replaced, effectively locking in exemptions).

The authority for the clearing of regulated vegetation falls into four subcategories: High Value Agriculture development approvals (about 10% of clearing of regulated vegetation); clearing under Accepted Development provisions (approx. 30%); clearing under Area Management Plans (about 38%), and finally unexplained or unknown authority accounting for about 22% (including B, C or R, Fig 2).

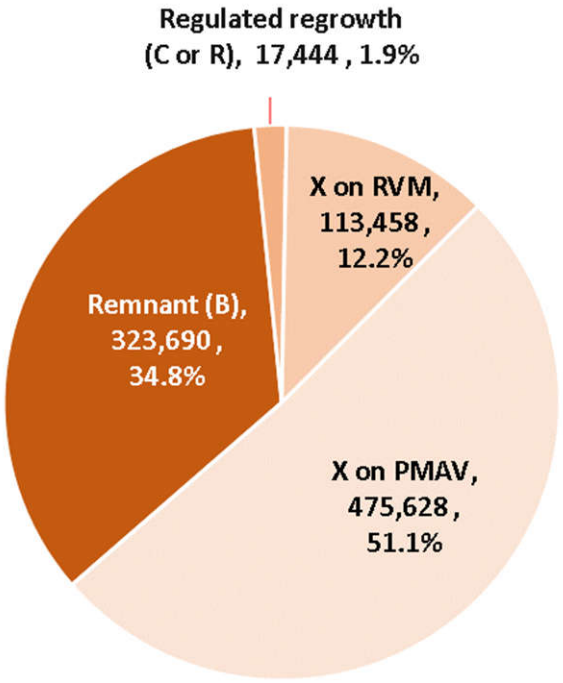


Fig. 1. The regulated vegetation classes cleared from 2013-2016 according to SLATS. Each label shows the regulated vegetation category, the area cleared in hectares and the percentage of all clearing in that category. X means exempt from any clearing regulation or code and PMAV means a property map of assessable vegetation. A small area cleared under the authority of other Acts is not shown here.

This should be no surprise. The 2012-14 supplementary SLATS report by the Department or Natural Resources[6] found quite a similar division of authorities for clearing in 2013-14 with 10% unexplained, 70% exempt and 20% permitted which includes both development approvals or code-based clearing (Fig. 3).

Therefore, most clearing is code-based clearing or of areas mapped exempt. Any attempt to drive down clearing rates, as the government promised, must deal with these major loopholes.

[6] https://publications.qld.gov.au/dataset/land-cover-change-in-qld-2012-13-2013-14/resource/c12a8143-dada-4d2e-bd9d-1acea37fbcb0

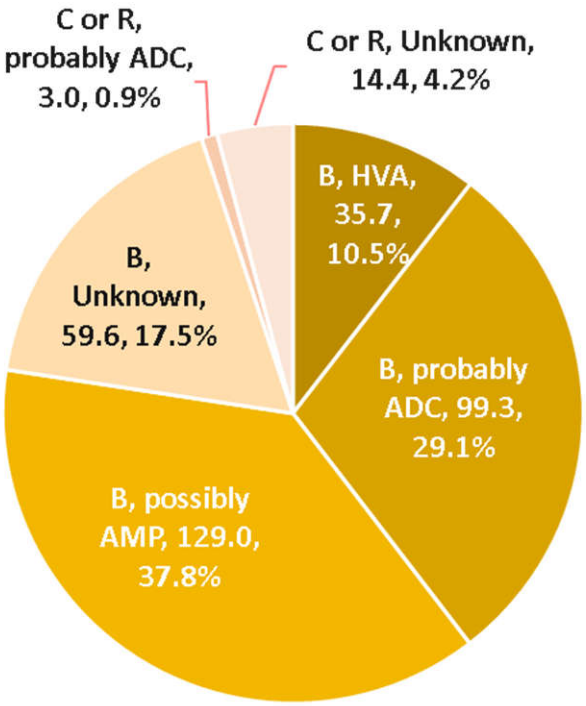


Fig. 2. The authority for clearing of regulated vegetation from 2013-2016 as mapped by SLATS. Each label shows the regulated vegetation category, the area cleared in hectares and the percentage of all clearing in that category. B, C and R refers to those respective categories of regulated vegetation, HVA means an approval for High Value Agriculture clearing, ADC means probably cleared under a notification under an Accepted Development code; AMP means possibly cleared under a code in an Area Management Plan; Unknown means that no readily accessible authority could be found or imputed.[7]

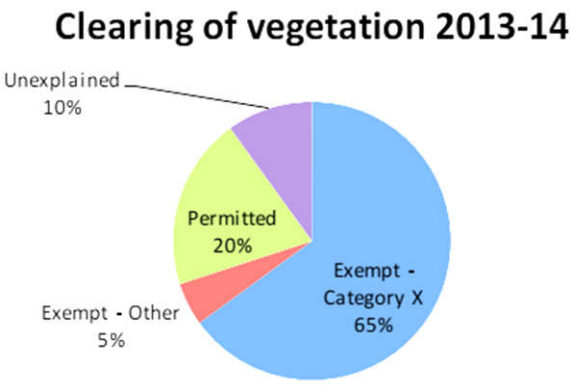


Fig. 3. Regulatory authority for clearing in 2013-14 according to the SLATS supplementary report 2012-14 (Fig 4, p 7).

[7] Data taken from http://www.wwf.org.au/ArticleDocuments/360/pub-briefing-bushland-destruction-in-queensland-since-laws-axed-9feb18.pdf.aspx

Key issues and recommendations

High value agriculture

Between 2013-2016, about 10% of regulated vegetation bushland clearing occurred under approvals for high value agriculture (Fig 2).

This loophole was one of the two main mechanisms by which the 2006 ban on broadscale clearing was undermined in 2012-13.

Removing high value agriculture as an allowable purpose was an express election promise by the government and VMOLA fulfils that promise. This provision is strongly supported.

Code-based clearing a major loophole that must be closed

Code-based (mis-termed self-assessable) clearing loopholes provide the second major way that the 2006 ban on broadscale clearing of remnant bushland was undermined and are the dominant reason for clearing of remnant and regulated regrowth (Fig. 2).

Code-based clearing accounts for ~68% of all clearing of regulated vegetation (Fig 2), with two main mechanisms:

- Area Management Plans (AMPs Part 2 Div 5B), under which clearing is exempt from assessment and approval processes if it follows codes specified in the Plans and prior notice is given. No public register of notifications is required by law.
- Accepted Development Codes (ADCs Part 2 Div 4B), under which clearing is likewise exempt from assessment and approval processes if it follows codes made under this division and prior notice is given. A public register of notifications is required by law.

Area Management Plans should be entirely scrapped

Area Management Plans (AMPs) covering all of southwest Queensland, were the main mechanism for allowing self-authorised clearing of mature bushland, prior to the amendments of 2013, and account for up to 38% of clearing of regulated bushland (Fig. 2). Since the government has promised to maintain self-assessable codes, this earlier AMP mechanism is now obsolete.

VMOLA would cancel one fodder plan immediately, phase out other thinning, encroachment and fodder plans over 2 years (Sect 136), while allowing other plans to run their full term. VMOLA would nonetheless allow new Plans to be made at the Department's discretion.

AMPs are a major loophole for destruction of bushland, they are unnecessary and duplicative, non-transparent because there is no public register of clearing notifications, and since they are not subordinate legislation, evade parliamentary approval.

VMOLA should be amended to remove any provision for making Area Management Plans entirely from the Act (delete Part 2 Div 5B) and to terminate all existing plans immediately.

Accepted development is not self-assessable code-based clearing

The government has promised to:

> *"maintain self-assessable codes (SACs), including for fodder harvesting, where they are providing appropriate protections. … only being applied to clearing that presents a low ecological risk."*[8]

However, self-assessable codes do not exist under the present Act. Rather, the Act exempts clearing from any need for normal assessment and approval processes if it follows certain "Accepted Development" (or Area Management Plan codes as above), and prior notice is given.

As implemented, "Accepted Development" is an exemption and is not the same as the self-assessable codes promised by government.

Truly self-assessable development should follow the *Leading Practice Model for Development Assessment*[9] under which only the assessment against criteria is done by the developer. The proposed clearing must then be submitted and approved by the regulator based on the self-assessment documentation provided.

VMOLA should be amended to remove accepted development and adhere to leading practice for self-assessment of development. Except for very small scale (~1ha) exempt clearing, development applications should be mandatory for all clearing regardless of who is doing it or why and regardless whether the developer or a government agency is the assessment manager. Self-assessment should mean just that, not a grant of effective exemption from assessment and approval processes as at present.

[8] ALP Saving Habitat Policy p 11
[9] https://www.planning.org.au/policy/development-assessment-forum

Accepted development clearing if continued, should be capped

If accepted development clearing is maintained, then codes should at least be capped in time and space to ensure they are "*low ecological risk".* These limits should be made explicit in the primary legislation, not buried away in codes.

VMOLA should be amended to ensure that all code-based clearing cannot affect more than 1% of the area of regulated vegetation on a property to a maximum of 10ha, within a 10 year period, and that clearing is prohibited for high conservation value bushland (see recommendations p 18 for more detail).

Thinning should be removed as an allowable or relevant purpose

Code-based "thinning" explains up to 40% of regulated vegetation clearing under both ADCs and AMPs (Fig 2).[10] Thinning is to be renamed in VMOLA as "Managing Thickened Vegetation". For brevity I will continue to refer to it simply as thinning.

VMOLA proposes to remove thinning from the list of purposes for which an accepted development code may be made (Bill clause 4). However, the amendment as proposed would not prevent a thinning code being re-made in future for thinning because of the word "including", which means that the list of purposes is no longer exhaustive, and implies that other relevant purposes could also belong on the list.

The word "including" in VMOLA Bill clause 4 sect 19O(1)(a) must be removed.

Despite the VMOLA, self-assessed thinning may still be allowed:

- under a development application according to State Development Assessment Provisions;[11] or
- under the interim thinning code and any accepted development code that could be issued despite VMOLA Clause 4; or
- via existing Area Management Plans (AMP) which would remain valid for another 2 years (New sect 136); or

[10] From Fig 2 ADC 21.2% and AMP 27.6% clearing combined, multiplied by a notional 60% of all notifications by area being for thinning from Fig 7 in *Bushland destruction* report.
[11] https://dilgpprd.blob.core.windows.net/general/sdap-v2-2-state-code-16.pdf

- via a new AMP issued under new sect 21B; or
- under codes for clearing categories C and R, noting also that both categories could contain regrowth that has returned to remnant status but is not recognised as having done so because government has no systematic program of mapping regrown remnant.

None of the codes newly made --- whether the new State Development Assessment Provisions 16; the new Interim code for managing thickened vegetation, or the new code for Category C --- implement the existing[12] or proposed definition as *"selective clearing of vegetation at a locality that does not include clearing using a chain or cable linked between 2 tractors, bulldozers or other traction vehicles— (a) to restore a regional ecosystem to the floristic composition and range of densities typical of the regional ecosystem in the bioregion in which it is located; and (b) to maintain ecological processes and prevent loss of diversity."*

ABOVE: Google satellite image of a property near Alpha in central Queensland during clearing of remnant ironbark forest under the Accepted Development Code for thinning in 2015. The top half shows intact forest, and the lower half "thinned" forest. The top half and indeed, the entire property has since been entirely cleared over an area in excess of 6,500ha. No permit was required to bulldoze this mature, remnant forest. Under previous codes only 30-250 immature stems per hectare needed to be retained.

[12] "**Thinning** means the selective clearing of vegetation at a locality to restore a regional ecosystem to the floristic composition and range of densities typical of the regional ecosystem surrounding that locality" *Vegetation Management Act*

There is no requirement to show that any actual thickening has taken place by empirical comparison with "*floristic composition and range of densities typical of the regional ecosystem*", as the Act definition implies, by measuring densities and compositions on the property at issue compared with those measured on relevant reference sites, such as a nearby national park. Instead arbitrarily, and as shown below, erroneously low immature tree density thresholds in codes are specified down to which forests can be bulldozed.

The thresholds in the codes are erroneous

Fensham 2008 published the following graph of empirically measured stem densities for immature trees:[13]

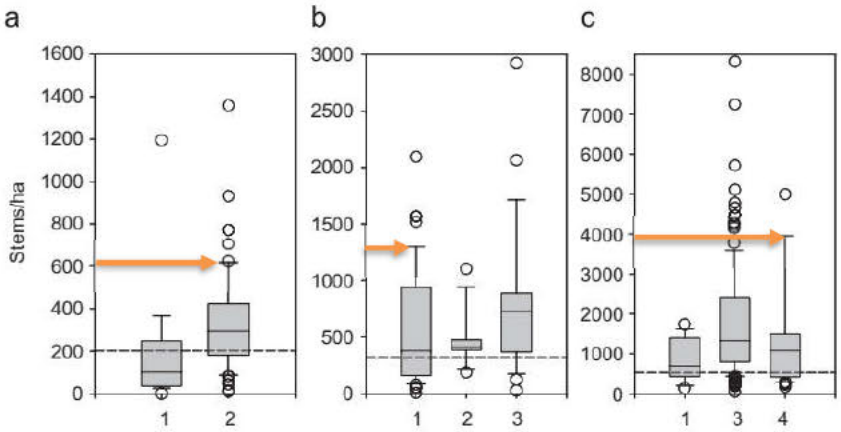


Fig. 1. Box plots of immature tree stem densities for different data-sets (key to data-sets in Table 2) for the three structural categories: (a) Very sparse, (b) Sparse, (c) Mid-dense. The median is identified within the box, limits of the box identify the 25th and 75th percentile, error bars identify the 10th and 90th percentiles, and circles are outliers. The thresholds identified by the procedure described here are represented by the dashed lines. Note immature stem densities are overestimated by Data-set 3 and underestimated by Data-set 4 because of variations in methods (Table 2).

The thresholds to which stem densities can be reduced in current codes are shown as dashed lines above. However, ecosystems thinned to these low thresholds cannot possibly represent the "*range of densities typical of the regional ecosystem*" which are shown by the graphs themselves. The typical range of densities plotted run much higher than the dashed thresholds which in most cases fall below median observed values. Rather the 90th percentile of densities (indicated by the red arrows above) provide the only thresholds within which vegetation can arguably be said to be statistically similar to the observed range of natural densities in each density class. For *very sparse* this would be more like 600 stems/ha not 200 as in the existing codes (The Category C code specifies an even smaller 100 stems/ha without regard to sparseness class), for *sparse* it would be about 1350 stems rather than the 300 in the codes and for *mid-dense* more like 4000 stems rather than the 500 stipulated in the codes.

13 Fensham, R.J., 2008. A protocol for assessing applications to selectively clear vegetation in Australia. *Land Use Policy*, 25(2), pp.249-258.

There is no requirement in the codes to quantify floristic composition at all to comply with the definition in the Act, only a vague guideline that it must be maintained.

If thickening at any given location were genuine then it must be an unnatural result of past mis-management (mostly, inappropriate fire and livestock grazing), otherwise it would just form part of the *"floristic composition and range of densities typical of the regional ecosystem"*. Studies of changes in tree densities in Queensland have failed to find any impact of such mismanagement, and have found instead that tree densities are entirely driven by natural rainfall fluctuations and droughts, indicating there is no unnatural thickening problem to be corrected in the first place.[14]

Even if there were genuine unnatural thickening, there is no test required to show that there is an ecological problem to be corrected which meets the proposed definition *maintain ecological processes and prevent loss of diversity*. Evidence suggests the opposite. Dense thickets of trees, whether anthropogenic or not, are found by empirical studies to be more beneficial for biodiversity than "thinned" forests, and thinning them is harmful.[15] One study found improved carbon accumulation in thinned brigalow forests, however, the stem densities optimum for carbon were 10 times higher (4000-6000) than the highest threshold of 500 in the thinning codes, and thinning was done by hand not by bulldozers.[16]

Thinning with bulldozers is an illegitimate activity contrary to science, based on the false pretext of correcting an ecological problem, when the transparent intent is to bulldoze forests to provide pasture for livestock, in contravention of the 2006 ban on broadscale clearing of remnant bushland.

None of this evidence appears to have entered into the formulation of new codes.

The new code contains caps on how much area can be "thinned". These cannot be described as *"low ecological risk"*. I applied the new interim code caps to the properties notified for thinning from 20/7/16 to 28/2/18 and found that over 71,000 ha could still have been bulldozed under this new code. Codes are not mutually consistent. Under the newly

[14] Fensham, R.J., Fairfax, R.J. and Archer, S.R., 2005. Rainfall, land use and woody vegetation cover change in semi-arid Australian savanna. *Journal of Ecology*, 93(3), pp.596-606; Witt, G., Luly, J. and Fairfax, R.J., 2006. How the west was once: vegetation change in south-west Queensland from 1930 to 1995. *Journal of Biogeography*, 33(9), pp.1585-1596; Silcock, J.L., Witt, G.B. and Fensham, R.J., 2016. A 150-year fire history of mulga (Acacia aneura F. Muell. ex Benth.) dominated vegetation in semiarid Queensland, Australia. *The Rangeland Journal*, 38(4), pp.391-415.

[15] Thompson, W.A. and Eldridge, D.J., 2005. Plant cover and composition in relation to density of *Callitris glaucophylla* (white cypress pine) along a rainfall gradient in eastern Australia. *Australian Journal of Botany*, 53(6), pp.545-554.

[16] Dwyer, J.M., Fensham, R. and Buckley, Y.M., 2010. Restoration thinning accelerates structural development and carbon sequestration in an endangered Australian ecosystem. *Journal of Applied Ecology*, 47(3), pp.681-691.

issued SDAP16 definitions of mature tree diameters exceed (20-40cm) those in the new interim thinning code (20-30cm).

Bulldozing forests and woodlands to turn them into open paddocks with scattered trees is not a valid or defensible means of redressing any genuine thickening that may have been caused by past grazing or fire mismanagement. If grazing or fire mismanagement has caused genuine change in forest structure, then the only legitimate remedy is to correct the management, not to bulldoze the forest. The thinning code lacks scientific support and represents a gaping loophole in the legislation which allows broadscale clearing by stealth for pasture, in contravention of the 2006 ban on such clearing, on the false pretence of doing ecological "good".

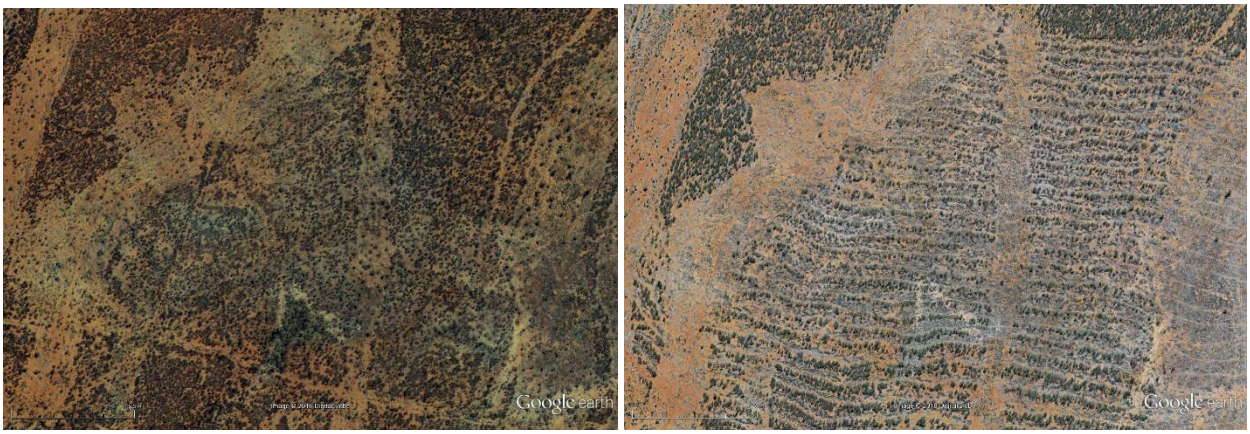
Thinning should be removed entirely as an allowable or relevant clearing purpose from the Act.

Fodder "harvest" with heavy machinery should end

Up to 11% of remnant clearing could be due to fodder harvest under ADCs or AMPs (Fig 2).

Fodder harvest by self-assessable code is an election commitment. But this can be satisfied with the existing exemption for lopping of boughs to feed stock.

Large-scale pushing or knocking down of remnant forests on the pretext of feeding stock on foliage is unnecessary, does not achieve the government's promise to "protect remnant vegetation" and does not meet the definition in the Act itself. Fodder harvest by heavy machinery as conducted under codes is not genuinely fodder harvest. It is broadscale clearing to convert remnant forests into mixed pastures of grasses and resprouting mulga. This goes well beyond the clear intent of the Act only to provide foliage to stock from the harvested foliage as necessary.



ABOVE: Google satellite images of a property near Charleville in south west Queensland before (left) and after (right) clearing of remnant mulga forest under the "fodder harvest" Accepted Development Code in 2015-16. Clearing is shown in progress. The intact patches at the top were later also bulldozed.

The newly issued replacement fodder code would still:

- allow 40% of a remnant mulga forest to be cleared in one swoop, and 50% within a 10 year period;
- allow up to 500 ha to be cleared at a time;
- set no test as to necessity of clearing, such as a drought declaration. The definition in the Act says fodder clearing must be *necessary*, but the code offers no test of *necessary*.

The new code contains a cap of 500ha on how much area can be cleared for fodder on a given lot. I applied the new interim code to the properties notified for fodder from 20/7/16 to 28/2/18 and found that over 65,000 ha may still have been bulldozed under this new code.

Fodder harvest in the form of pushing or clearing of mulga forests with heavy machinery does not accord with the definition in the Act, and is unnecessary because lopping is already exempt. It should be removed as an allowable activity.

Unknown clearing of remnant

As Fig 2 reveals, 21.7% of regulated vegetation cleared from 2013-16 cannot be readily explained by available high value agriculture approvals, notifications or AMPs. This could include development approvals for other clearing than agricultural clearing, but this could not be determined. These are generally small but multitudinous and difficult to map because there is no central registry available to the public. The State Assessment and Referral Agency (SARA) register[17] does not contain development approvals by local governments, does not provide any spatial data except buried in approval documentation as (sometimes unreadable) lists of coordinates, and cannot even be filtered for native vegetation clearing proposals.

SLATS only identifies ~21,000 ha of clearing as due to mining, infrastructure and settlements from 2013-2016. This accounts for only about one third of the total of 64,000 ha of regulated vegetation cleared without known authority (Fig. 2). Hence most of the "unknown authority" clearing cannot be explained by development approvals for these purposes, and could be illegal. The solution is stronger enforcement and provisions to improve enforcement in VMOLA are welcomed. However, greater openness with data is essential to enable clearer understanding of legal authority.

VMOLA should be amended to require a consolidated central spatial database open to the public showing all areas of native vegetation subject to clearing under whatever authority.

[17] http://www.dilgp.qld.gov.au/planning/development-assessment/sara-assessment-manager-decisions html

Exempt clearing

Exempt areas are supposed to comprise only non-remnant. It turns out this is not so.

About 22,800ha cleared from 2013-16 was mapped exempt but was also mapped as remnant by the Herbarium at the time it was cleared in the Regional Ecosystems layer version 9.[19] The Herbarium is continually correcting the regional ecosystem mapping, now at version 10, but the regulated vegetation map has not kept track, and is stuck at version 6 until the new proposed regulated vegetation map is certified.[20]

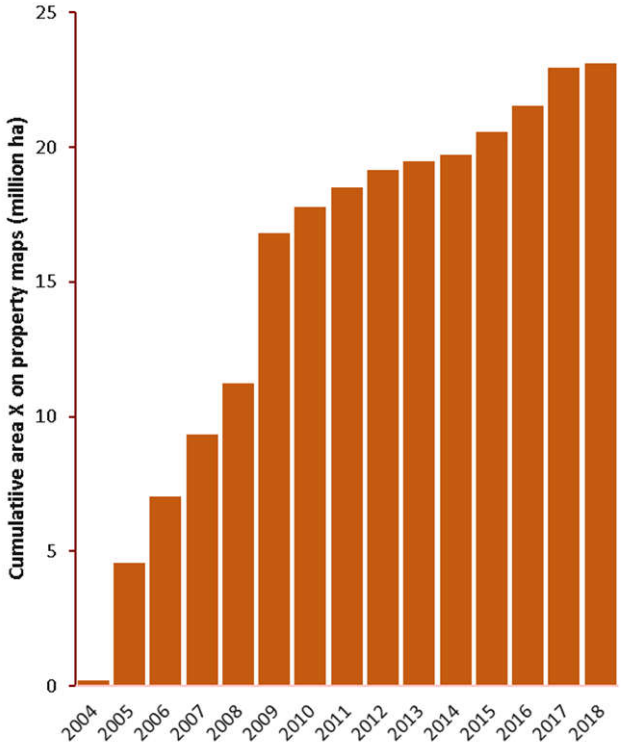


Fig. 3 Cumulative area mapped exempt on current property maps 2014-present.[18]

Also, 123,700 ha cleared from 2013-16 was mapped exempt but had very likely regrown to remnant in 2013.[21] There is no systematic mapping of remnant that has regrown by the government, and this oversight should be corrected. Regrown remnant logically should be a hidden subset of category C "high value regrowth". At present, this means it has not be re-cleared since 1989 on leasehold land only, exclusive of areas already locked in as exempt (X) on a property map.

VMOLA would widen that definition to include regrowth 15 years or more of age on all tenures, but again excluding areas that have been "locked-in" as exempt on property maps. Nonetheless this would bring over 1 million hectares currently exempt into regulatory categories C and R as discussed below, a welcome and valuable move.

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[18] Source data: *Vegetation Management Act property maps of assessable vegetation* http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={D96F12B8-D3A3-4D7D-824B-AF2D45805592} as downloaded on 8/3/2018. Only current X area is shown. Areas calculated in the Albers Conical Equal Area projection on GDA94 datum. Year is taken from the PMAV number. Some PMAVs may have been made earlier, and the replacement year is shown.

[19] Fig 4 in http://www.wwf.org.au/ArticleDocuments/360/pub-briefing-bushland-destruction-in-queensland-since-laws-axed-9feb18.pdf.aspx

[20] That map is available at http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={A69AE4BD-BAA8-44AD-8E35-362DB78B848A}

[21] Fig 4 in http://www.wwf.org.au/ArticleDocuments/360/pub-briefing-bushland-destruction-in-queensland-since-laws-axed-9feb18.pdf.aspx

Exemptions are a stumbling block for the government's promise to protect remnant and high conservation value regrowth because the process of locking in exemptions leads to a continual loss of high conservation value, and in time, also regrown remnant. VMOLA would do nothing to halt this process of locking-in exemptions.

Once a PMAV is made under section 20C it is effectively 'locked-in' as such regardless of ecological consequences. Exemptions on PMAVs have grown at an alarming pace with 23 million hectares under exemptions at present (Fig 3).

PMAVs should be returned to the original intent of providing a means to check for and if necessary correct genuine inaccuracies in regulatory maps with ground-based evidence. Regulatory maps should be reserved to the state in the VMA.

However, it is stated government policy to honour locked-in exemptions. Therefore, the only remaining option to reduce clearing rates in this class is through the incentivisation of voluntary surrender of exempt areas presumably using the promised Land Restoration Fund to secure surrender where carbon emissions reductions and biodiversity values are high. VMOLA paves the way for this approach with a provision to allow category X to voluntarily be remapped as protected Category A on property maps.

Although additional criteria are now provided limiting what can be mapped exempt on a property map (Sect 20CA amendments), the circumstances under which the chief executive can make or replace PMAVs including category X remain very limited (Sect 20B).

VMOLA should be amended to prevent any further permanent locking-in of exemptions on property maps, which should at most, have a fixed term. Moreover, new amendments should require mandatory annual revision of regulatory maps to convert exempt vegetation to high conservation value regrowth Category C when it reaches the threshold age, or regrowth that regrows back to remnant status Category B.

High conservation value regrowth

The government has committed to protection of a new category of "high conservation value regrowth" where[22]

> "High conservation value" will be defined consistently with the international definition advocated by the High Conservation Resource Network, including (but not limited to) endangered vegetation species and communities, vegetation in reef catchments, riparian areas, threatened species habitat and areas where landscape integrity is at risk.

VMOLA explanatory notes claim:

> The Bill will achieve the objective of protecting high value regrowth vegetation and aligning it to High Conservation Values by:
> - re-defining 'high value regrowth vegetation' to mean native woody vegetation that has not been cleared for 15 years, and forms an Endangered, Of Concern or Least Concern regional ecosystem; and
> - further amending the definition to include high value regrowth vegetation on freehold land, Indigenous land, and land which is the subject of an occupation licence under the *Land Act 1994*.

The consequence of the redefinition is that proposed changes to the regulatory maps[23] (which would only come into force if VMOLA is passed) would remap what is currently exempt on the regulated vegetation map as High Value Regrowth Category C, a welcome addition of over 900,000 hectares.

However, in VMOLA the government goes further by expanding regulated regrowth category R in Reef watercourse buffers, to all Great Barrier Reef catchments, adding over 320,000 ha to this category. Such changes advance the government commitment in respect of *high conservation value regrowth*, although there is considerably more to do.

VMOLA will also expand the definition of essential habitat to include near threatened species, (amended definition of new sect 141 and consequential amendments). This will add another 567,603 ha of essential habitat (4,320,796 ha at present)[24]. These category C and R and essential

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[22] Queensland Labor 2017. *Saving Habitat, Protecting Wildlife and Restoring Land: Ending broadscale tree clearing in Queensland (again)*

[23] http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={A69AE4BD-BAA8-44AD-8E35-362DB78B848A}

[24] Comparing *Vegetation management essential habitat no attribute map - version 6.0*
http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={4D8FA588-7363-4054-9885-C0009689BE5D}
With *Vegetation management essential habitat no attribute proposed map*
http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={D25D2746-77DE-45C8-BC4A-0F0ADE62ABEA}

habitat additions do not however, include areas that may meet the definitions, but are mapped exempt on a property map.

Also, because the criteria for "high conservation value" have not been specifically articulated in the Act, implementation of the government's election commitment has been devolved to the codes for assessment of development applications (State Development Assessment Provisions), or Accepted Development codes that regulate clearing of category C and category R.

The newly issued State Development Assessment Provisions (SDAP) 16 do not even mention or provide for protection of "high conservation value" regrowth. Any protection is a by-product of restrictions on conduct of the many allowable purposes which include thinning, fodder, encroachment, infrastructure, extractives, etc.

- SDAP 16 does not prohibit clearing of essential habitat or endangered and of-concern regional ecosystems, which may still be cleared for most purposes with provision of an offset. Clearing of essential habitat is not restricted at all for thinning and encroachment clearing. Thinning and encroachment like other purposes do have to observe setbacks from wetlands and watercourses.
- The newly issued Accepted Development Code for Category C clearing only requires an offset for clearing essential habitat, endangered or of concern regional ecosystems, if clearing is for extractive industries or infrastructure. Essential habitat clearing is unrestricted for other purposes, in particular: encroachment, thinning and fodder. Thinning, weeds and encroachment have absurdly small 2-5m setbacks from wetlands and watercourses. Mulga clearing does not. Thinning can be conducted down to absurdly low stem densities of 100 per hectare (non-coastal) inconsistent with the higher thresholds in the newly issued interim code for thinning. As for both codes, there is no test required to establish that unnatural thickening has taken place or that it is an ecological problem.
- The legacy code for clearing category R remains in effect and no new code has been issued. The wetland and watercourse setbacks are also absurdly small 2-5m, other than for general purposes where setbacks range from 10-50m. There is no prohibition against destruction of essential habitat.

The continued reliance on accepted development code-based clearing undermines the government's election commitment, and undermines the very welcome expansion of areas in categories C and R or essential habitat. Protections for high conservation value habitats should not be left to obscure and complex codes, but should be made explicit in the primary legislation as follows:

VMOLA should amend the Act to specifically prohibit clearing of any remnant or regrowth 15 years old or more on any tenure that is high conservation value due to presence of:
a) At risk, rare, threatened or endangered ecosystems, or
b) Habitat necessary for recovery of threatened species to the point they are no longer threatened including: i) dispersal corridors including those needed for successful adaptation under projected climate change; ii) a wildlife refugium including those needed for successful adaptation under projected climate change or iii) a centre of species endemism.
VMOLA should amend the Act further to specifically prohibit clearing of any remnant or regrowth of any age where "landscape integrity is at risk" that is:
a) within 100m of any watercourse, wetland, lake or spring, or within 1km of a wild or pristine river,
b) on slopes above 10%,
c) on fragile or erodible soils,
d) in areas prone to salinity or rising water tables,
e) in areas prone to mass movement by gravity of soil or rock,
f) in an area that would result in declining inland or marine water quality, or
g) in an area within a catchment that is important to maintaining water quality for the Great Barrier Reef or environmental flows in the Murray Darling Basin.

Protection of native wildlife

The tree clearing crisis is also an animal welfare crisis according to the RSPCA and distinguished zoologists.[25] However, neither VMOLA nor the Act contains provisions for preventing unnecessary suffering and death of native wildlife due to bulldozing or destruction of their bushland habitats.

It is common for local councils to require urban or industrial developers to do wildlife surveys and relocation or at least to engage spotter-catchers during clearing to avoid unnecessary suffering and death of wildlife. No such requirements apply to clearing generally, especially to accepted development and exempt clearing.

[25] http://www.wwf.org.au/ArticleDocuments/353/pub-tree-clearing-hidden-crisis-of-animal-welfare-queensland-7sep17.pdf.aspx?Embed=Y, and https://theconversation.com/land-clearing-isnt-just-about-trees-its-an-animal-welfare-issue-too-80398

The impacts on wildlife are severe with over 45 million vertebrate animals – mammals, birds and reptiles-- killed in 2015-16 alone directly by bulldozing of habitats,[26] including over 1000 koalas.[27]

The suffering of native animals goes undocumented and unchallenged because it is deemed outside the scope of the *Animal Care and Protection Act.*

There is no head of power in the *Nature Conservation Act* to compel a developer clearing land to provide for surveys, spotting or relocation of displaced wildlife, except for koalas in southeast Queensland.[28] Indeed the *Nature Conservation Act* provides a defence for unauthorised take of protected species during tree clearing, on the basis that the take of species is not the intent of the action, and the take cannot be reasonably avoided. [29] Much depends on what "reasonably avoided" means, and regulation could be made under the *Nature Conservation Act* which codifies what steps must be taken to reasonably avoid deaths of protected wildlife during land clearing operations.

VMOLA should be amended to include as an additional purpose of the VMA under sect 3 a new purpose "(i) avoids or minimises harm to native wildlife." Protocols for avoiding harm should be implemented in subordinate clearing codes: such as requirements for wildlife surveys, spotters engaged during clearing, and relocation of wildlife at risk if suitable relocation habitat exists.

Sincerely

Martin Taylor

22 March 2018

[26] http://www.wwf.org.au/ArticleDocuments/353/pub-australian-animals-lost-to-bulldozers-in-queensland-2013-15-25aug17.pdf.aspx
[27] http://www.wwf.org.au/ArticleDocuments/360/pub-koalas-lost-to-bulldozers-in-queensland-2010-16-22nov17.pdf.aspx
[28] *Nature Conservation (Koala) Conservation Plan 2017*
[29] *Nature Conservation Act* sect 88 *(3) It is a defence to a charge of taking a protected animal in contravention of subsection (2) to prove that—(a) the taking happened in the course of a lawful activity that was not directed towards the taking; and (b)the taking could not have been reasonably avoided.*