

February 16, 2025

Submission on the Biodiversity Bill

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Introduction

The Local Flora Society is an informal group of people who have a commitment to the conservation and management of the flora that naturally occurs in the locality where it evolved. This is the flora that has interest, meaning, and significance and is worthy of the cost and effort, and for the legal framework required for conservation, restoration and management. Members undertake bushcare work in areas of remnant native vegetation on private and public land, undertake quality restoration work in degraded sites, and advocate for their local flora.

The first task in restoration is always to remove weeds and thereby maximise the ability of the plants on the site to naturally regenerate. Planting should not be done as a matter of course but done according to the needs of the site when the site is ready to receive the plants. Plants should be propagated from local remnants with a view to representing to the extent possible the genetic make-up of local populations of the species that are appropriate for the site.

We understand that it is the quality of the ground layer flora that largely determines the approach to restoring an area of native vegetation. The groundflora is easily degraded or lost through the invasion of weeds and requires a high degree of knowledge and a long time of consistent effort for restoration. Where the ground layer is invaded with weeds and there is insufficient time, money, and/or knowledge to do useful restoration work, then no actions should be taken that will compromise the existing remnant native groundflora nor limit the possibility of future restoration of the site. The idea in the bill that a permit might be granted to clear existing native flora to undertake a revegetation project is very problematic.

As described by the nature writer David Quammen in his book "Song of the Dodo", the Earth was once covered by a complex tapestry of life with the threads and their arrangement at a particular location being unique to that location. In the agricultural regions of the State, most of the tapestry of life has been destroyed with only a few fragments remaining often in very poor condition. The fragments of the tapestry of life are represented by patches of

native vegetation with varying degrees of fragmentation and degradation, and individual relict plants scattered through the landscape.

Climate change is cited in the bill as the reason for providing legal protection for plantations of Australian plants. In most cases, we believe that we can help our local flora adjust without the need to adopt the popular defeatist notion that climate change means that the conservation of local genetic diversity is a waste of time.

We have great concern about the underlying philosophy of this bill which seems to assume that remnants of local flora can either be ignored or traded for plantings of “natives” from anywhere in Australia. It appears that the bill may give organisms at a locality a greater consideration for protection only if they are threatened with state-wide extinction while the general erosion of remnant local flora on roadsides and council reserves is destined to continue.

The bill is mostly counterproductive in that it will expand the scope for clearance of remnant native flora, and will encourage the undertaking of poor quality revegetation. It also does nothing to help local people understand and intelligently manage the flora of their locality; it does nothing to encourage the development of knowledge and skills in vegetation field workers; it does little to facilitate research into ecological restoration and management; and it does nothing to encourage local councils to understand and better manage the flora for which they are responsible. We need to be improving the expertise of ecological restoration and management, not using legislation to enforce reduced standards.

Operation

Section 6 part 5 provides that at any time or location the provisions of this act can be suspended by the Governor. This provision seems to enable any intensification of development to happen anywhere irrespective of the damage wrought on the natural environment. There are so many ways in which this bill provides an opportunity for vegetation clearance that this provision hardly seems necessary.

Definitions

Several words are defined under the heading of “Interpretation”, or are defined in other sections, or are used without a definition. Many words originally used in the science of ecology are now used colloquially with meanings that are different from the original meaning. It seems that this bill perversely provides a legal force for the popular meanings. Other terms have been created for the purposes of this bill. Many of these terms require comment to clarify the meaning or to question the underlying philosophy.

The word **“biodiversity”** is in the title of the bill and the definition is good as far as it goes. People with knowledge of the natural world will agree with the definition provided as far as it goes, but will understand that it does not convey the full meaning of the word. The word

“biodiversity” is commonly used in ways that are unhelpful to conservation, restoration and management of the natural environment.

The term “biodiversity” was first coined to bring to people’s attention the fate of the intricate tapestry of life across the planet. It refers to the myriad of life forms, their genetic make-up and assemblages of these life forms across the surface of the Earth. It was never intended as a simple count of species at a location with no regard to their genetic makeup, their origin and their interaction with other species. The use of a definition that has no reference to ecological history of a location leads to the simplistic notion that more species means better biodiversity. The implication is that you can “enhance” vegetation by adding species from elsewhere. This is similar to the discredited philosophy of the acclimatisation societies of the nineteenth century. Biodiversity is not simply a count of life forms at a locality as is now commonly assumed, but this seems to be the meaning applied in this bill.

The definition of the word “**native**” as a plant that naturally occurs in Australia makes no ecological sense. The bill makes no distinction between a plant whose evolutionary history is in the location where it evolved and a plant from anywhere else in Australia. In English language, “native” means originating at a specified location and it is the plants that are native to the area where they evolved that are worthy of legal protection. It is geographical separation that largely leads to the evolution of the plant diversity over the Australian continent. To deliberately break down this separation will only enhance the extinction spiral.

To equate local flora to the flora introduced from anywhere in Australia is perverse. Plants from elsewhere in Australia can often be very damaging to local ecology. Australian plants can become invasive weeds in their own right eg various *Acacia* and *Melaleuca* species. Australian plants are more likely to hybridize with local plants than are plants from other continents. Introduced *Grevillea*, *Acacia* and *Eucalyptus* species frequently hybridise with local species of the same genus. A local example of hybridisation is the endangered *Acacia menzeldii* from the eastern Mt Lofty Ranges. If *Acacia verniciflua* from the central Mt Lofty Ranges is planted near it, a large percentage of its offspring will be hybrids, further endangering the already endangered *A. menzeldii*.

The explanatory notes state the idea that expanding the definition of “native” to include plants from all of Australia will enable “restoration which supports climate change adaptation”. This follows from principle 8 in the bill which states that “halting and reversing biodiversity loss, such that there is an improvement in the state of biodiversity, will require embracing new and transformative ways of thinking and acting to support the environment, economy and wellbeing of today's generation and future generations”. With the climate and biodiversity crises we are facing, we do not need to confuse dangerous ideas with new and transformative thinking. It is not clear why “new thinking” is considered to be a principle while basic principles of ecology and restoration are not mentioned. While the concept of mixed-provenancing is understood in ecological restoration practice to skew the source

genetic material towards the warmer and drier sides of the locality, climate change should not imply throwing the baby out with the bathwater.

Whilst it is obvious that establishing ex-situ populations of a threatened species may be appropriate to ensure its conservation, we disagree with the provision in the bill that provides for the protection of planted Australian plants if they are more than 20 years old. Protection for planted vegetation should only apply where the vegetation is a quality, well managed restoration site that maximises the capacity for natural regeneration and where plantings are propagated from local remnant flora. Plants may need to be protected, at least temporarily, if they are providing significant resources for threatened fauna but in this case it doesn't matter whether the plants are Australian or not.

The bill has abandoned the long used and meaningful term "native vegetation" and has adopted the term "**native plants**" which, using the definition of "native" given in the bill, means any plant that is native to Australia. The abandonment of the word "vegetation" means that protected plants no longer need to be, or to have been, a part of the original vegetation of the locality. The interpretation of "biodiversity" and "native" are a major fault of the bill.

There is a definition of the word "**stratum**" which refers to "a layer of plants that comprises native plants that have a similar growth habit". In ecology, a stratum in a vegetation community consists of plants of similar height regardless of their form. This word seems to be used instead of the word "vegetation" but it is not clear for what purpose.

The definitions of "**degradation**", "**harm**" and "**substantial damage**" are confusing.

"Degradation" is stated as "(a) a loss of native plant cover; and (b) a reduction in the diversity of native plant species; and (c) a reduction in the ability of the ecosystem of which it forms a part to be self-sustaining". To require all 3 of these conditions to pertain before vegetation can be considered to be degraded is very high bar especially as there is no definition or agreed meaning for "self-sustaining". The definition makes no mention of weeds even though, in highly cleared areas, weeds are probably doing more damage to native vegetation than direct clearance.

At the end of part 2, there is a definition of the word "harm" that introduces the word "trivial" leaving it up to agencies, officers and courts to decide on what is trivial harm. It is the accumulation of thousands of trivial harms that is destroying relict native flora throughout the settled areas of the state.

The definition of "substantial damage" is drafted to specify damage to one single "native" plant. Presumably this applies to an invasive Australian plant as well as to a relict local plant. As large numbers of relict local plants are destroyed every day by weed spraying, quarrying, road maintenance, site development, and many other activities, we would like to see a legal requirement for improved performance of all these activities while allowing for the removal

of invasive Australian plants and for the management of certain colonising local species such as *Acacia paradoxa*.

The bill seems to assume that to “**restore**” is something that can actually be done if required. It seems that “restoration” is being equated with “revegetation” which is the term most commonly applied to a plantation of “native” plants. Whilst in areas with very low weed incidence, revegetation can set up the conditions for natural regeneration of other species with a good restoration result, in the higher rainfall and weed dominated agricultural areas of the state, a revegetation project is unlikely to result in anything like restoration.

In the literature on the subject of ecological restoration and management, the word “restore” refers to actions taken to return a degraded area of vegetation to a previous state. Whilst there is disagreement about what point in history is appropriate, in Australia, the aim is generally considered to be native vegetation prior to the introduction and spread of weeds by European colonists. Whatever the target state for restoration, it is clear that the drafters of the bill make the wrong assumption that all that is required for restoration is a time limited project involving defined weed spraying and the planting of native plants. In fact, restoration of highly degraded remnants is extremely difficult and practically impossible. And yet, in the bill, there seems to be an assumption that restoration is quite easy and can be achieved by providing some conditions for an unskilled proponent of land clearance to follow. It is obvious that the drafters have in mind something like poor quality revegetation rather than ecological restoration. The establishment of poor quality revegetation is encouraged in this bill which is perverse, as this kind of vegetation has little, if any, ecological value.

There are ecological restoration practitioners who do the best work they can with the resources available. These people will find it increasingly difficult to undertake quality work as the legal understanding of restoration is dumbed down. The work they do will increasingly be legally specified by a central committee rather than by an understanding of the local native flora and an assessment of the site.

The underlying philosophy of this bill seems to be encapsulated in the “**mitigation hierarchy**” coupled with the concepts of “**significant environmental benefit**” or SEB and “**biodiversity credits**”. The combination of these concepts makes the approval of a clearance application almost inevitable.

By following the hierarchy, if a way of avoiding the clearance cannot be found that satisfies the applicant, then the applicant can do something that will result in something that, by some measure, can be deemed to be ecologically better than the area of native vegetation proposed to be cleared. The applicant can also claim something they have done before or something someone else has done as a biodiversity credit. This is called a “significant environmental benefit”.

In almost all cases, the idea that it is possible to revegetate an area to replace local native vegetation that has been cleared is fanciful. So, unless the area to be cleared is mostly weeds with only easy to propagate trees and shrubs, no actual SEB is possible. According to the hierarchy, a dollar value will be determined for the cleared vegetation and this will be used to fund administration or other revegetation projects. The idea that it is possible to put a dollar value on irreplaceable native vegetation is also fanciful. Basically, this philosophy leads to considerable scope for clearance approval and the funds raised will be used to promote a “restoration economy” which is really just a poor quality revegetation economy. It appears to be a way of putting a bandaid on the damage caused by the unrestrained development that is to be presided over by the provisions of this bill. Whatever gloss is put on it, the concepts of SEB and biodiversity credits are completely flawed and should be abandoned.

Redefinition of certain protected areas

We question the new terms used for private protected areas. The existing Heritage Agreement should be maintained to apply to an agreement voluntarily entered into to protect an area of native vegetation. It should also apply to areas of ecological restoration only if they achieve a very high quality standard. The bill proposes that these agreements should henceforth be called a “**biodiversity agreement**”. As the bill states that biodiversity includes all Australian plants, a “biodiversity agreement” will equate poor quality revegetation with original native vegetation. The bill also proposes a new “**conservation agreement**”. The word “conservation” has traditionally been a meaningful word referring to the protection and care of areas of natural heritage in perpetuity. The new “conservation agreement” redefines conservation to apply to a patch of “native” shrubs time limited to 20 years. It would be preferable to maintain “heritage agreement” for areas that actually are natural heritage and to use the name “restoration agreement” for other areas that have some natural value be they highly degraded remnant native flora or plantings of local flora. This could include vegetation established for landcare purposes or for carbon sequestration only if it is established and managed in a way that maximises natural regeneration and uses propagules representing local genetic diversity. In time, with good management, a restoration agreement site could be converted to a heritage agreement site when a certain standard of restoration site quality has been achieved.

If there is a need for a time-limited agreement for poor quality plantings, it could be called a “revegetation agreement” and apply to landcare or carbon plantings that do not support the local flora.

Section 90 refers to a “sanctuary” with no definition. This requires clarification.

The bill seems to assume that biodiversity is something that exists to be preserved and “enhanced”. But nothing in the bill recognises the gradual erosion of relict native flora that is occurring all the time in the agricultural regions through ignorance and neglect. Gradual degradation occurs through the invasion of weeds, poor vegetation management that

encourages the spread of weeds, and loss of remnant native flora occurring through spraying, slashing, road graders and heavy set-grazing. All these activities appear to be able to continue unhindered.

While the bill provides for a local restoration practitioner to be heavily fined for collecting a few seeds and cuttings from local remnants or for removing a non-local Australian plant, local councils can legally spread weeds, spray out areas to control these weeds, and do any other damage that is incidental to road and other public works.

The bill needs to be altered to give local councils legal responsibility for the local flora under their care and control. There needs to be a requirement for each LGA to have a “natural heritage officer” (or another name of similar meaning) to;

- advise councillors, council staff and contractors on native vegetation matters,
- develop and implement local vegetation management plans,
- monitor native vegetation in the district and report on clearance and other issues,
- be the contact and support person for local people interested in the restoration and management of local native flora,
- give permission for propagule collection from council controlled land for local restoration sites,
- be the lead custodian of local natural environment knowledge in each LGA.

In less populated LGAs, the officer should be funded by the state government; the officer should have legal status so that their advice to council must be taken into account; and the officer must have an adequate level of qualifications and experience or sufficient mentoring to achieve this. Serious consideration should be given to establishing a local natural heritage committee under the local council or group of councils and led by the natural heritage officer. Local flora management decisions could be made locally rather than by a central committee with the right of appeal to the Biodiversity Council.

The term “biodiversity officer” should be avoided because the word “biodiversity” has such a corrupted meaning these days that someone called a “biodiversity officer” will be expected to be a horticulturist specialising in planting and maintaining “native” plants rather than a botanist, and a manager and restorer of native vegetation.

Ever since the establishment of the NRM boards, local councils have had no legal requirement to have any land management related agenda items. Councils need to understand the natural environment that they are responsible for and be given legal responsibility for its management. Councils should not be allowed to continue to assume that the state government is looking after all native vegetation matters.

Comments on particular provisions

The following comments on particular statements and provisions of the bill flow from the major difficulties with the bill that are described above. It is not a complete critical assessment of the bill because of the limited time available to draft this response.

The **objects** of the proposed act are good, but when read in conjunction with the definitions, and with the provisions, it is not clear how these objects can possibly be achieved. By counting plants from anywhere in Australia as contributing to biodiversity, and the encouragement of poor quality revegetation through the concepts of SEB and biodiversity credits, the provisions stated in the bill do not support the stated objects.

Two of the **Principles** are questionable. The first principle states “that halting and reversing biodiversity loss, such that there is an improvement in the state of biodiversity, will require embracing new and transformative ways of thinking and acting to support the environment, economy and wellbeing of today's generation and future generations”. This principle appears to say that looking after native vegetation is good provided that we transform our thinking about biodiversity so that it no longer applies only to local flora and fauna. The principle implies that nature conservation should be secondary to the needs of population growth and economic development. The fourth principle, that decisions should “be made having regard to the potential long-term, medium-term and short-term impacts of climate change”, sounds good but can easily be used to justify any kind of revegetation.

Under “**Statutory bodies**” are provisions related to the establishment of several statutory bodies. Whilst the composition of the **biodiversity council** is aimed at “achieving a balance of expertise that is relevant to addressing the conservation, restoration and enhancement of biodiversity”, on a council of 12 there is a requirement for only one member to have knowledge of native vegetation and restoration. Whilst this member may get some support from the aquatic ecologist member, the council is overwhelmingly made up of people with vested interests in clearing native vegetation. It is not clear that anyone with a good knowledge and experience of native vegetation would want to be the only terrestrial ecosystem representative on this council. In any case, no one person can possibly have state-wide knowledge of South Australian botany as well as an understanding of practical vegetation management across the vast range of terrestrial environments.

In section 49 titled “**Matters NPCAC must have regard to when determining application**” there is the questionable provision in paragraphs 2 and 3 that the committee “will have regard to the applicants desire.....”. Obviously the applicant wants to do the clearance or else they would not have applied. The applicant’s desire to undertake vegetation clearance should not influence the committee.

In section 50 under the heading “**Circumstances in which consent may be given etc**”, there is the marvellous sounding statement “the NPCAC cannot give its consent to the clearance of native plants under this Division if the plants contain, or are constituted of, a stratum of native plants that is substantially intact.” The section then lists all the circumstances where this does not apply. This section seems to make just about any desired clearance of native vegetation possible. Unless there are clear legal statements preventing the clearance of native vegetation, this proposed biodiversity act will simply be a way of extracting money at

the expense of our natural heritage. Sections 50 and 52 are extremely disappointing and provide no hope for citizens who actually care about the flora of the state.

Schedules 2 and 3 list all the circumstances where clearance can be undertaken without a permit. Interestingly enough, the collection of propagules for local ecological restoration sites is not included.

In these schedules there is no distinction made between the effects of different forms of clearance. Clearance by cutting, mowing, and burning allows for the regrowth of the vegetation and is much less damaging than bulldozing or spraying. The schedules need to be reviewed to tightly define the circumstances where bulldozing can be considered to be permitted clearance. The application of herbicides where local flora is present should also be re-thought. It should only be permitted if methods are used that do not damage existing native flora.

Under Part 6, **“threatened species.....”** there is a lot of detail about the process of listing threatened species and communities and documenting threats and management. The attention to threatened species is laudable but we note that there are still plenty of ways in which permission may be granted to clear threatened species habitat. Threatened at a state level is a pretty high bar to achieve in order for an area of vegetation to be given greater protection from clearance. We note that there is no scope for additional protection at a local level. We believe that local councils through the advice of local flora groups and the local council “natural heritage officer” should have the ability to determine which species and vegetation communities are locally rare or threatened as, in highly cleared and weed-infested regions, much of the local flora is very precarious even if the equivalent species may be common in other parts of the state.

But no list of significant sites or threatened species should be used to discount the value of flora patches and scattered relict plants that are not listed as they are all very important for the locality where they occur.

Conclusion and summary

In redrafting the bill we would like the following minimum considerations:

1. The bill as it is written is rendered pretty much useless by the “new and transformative” way of defining “biodiversity” and “native”, and by the avoidance of the word “vegetation”. With improved terminology that reflects ecological reality, the bill will be much improved.
2. Names of the various vegetation management agreements should reflect what they protect – natural heritage, restoration and revegetation. Native vegetation and restoration attempts should not be lumped together as “biodiversity” and revegetation is definitely not “conservation”.
3. The philosophy of setting up a biodiversity market with SEBs and “biodiversity credits” should be abandoned. We are not in a post-glacial biome like Britain and northern Europe,

where weeds are few and where, in time, fields naturally develop into meadows which develop into scrub and woodland. Our vegetation generally has specialised regeneration requirements, is susceptible to weed invasion and extremely difficult to restore when damaged or cleared. It is not a replaceable commodity to which a price can be attached.

4. Local native flora should be given as much protection and quality management as is given to works in an art gallery or archaeological museum. Artworks are protected and, if they are damaged or are in poor condition, they are stabilised or restored by competent practitioners. New and transformative thinking is required to work with landholders to achieve an equivalent level of care of our remnant native flora.

5. Local councils should be given legal responsibility;

- for the protection and management of the natural heritage under their care and control,
- to ensure that a staff member at high enough level has botanical and ecological restoration competence,
- to support the local community with flora restoration in their LGA.

6. Having local or regional natural heritage committees instead of one central clearance assessment committee.

7. Set up a training and research institute or university department dedicated to the management of native vegetation and restoration from various degrees of degradation and in different regions of the state.