



## **VNPA Submission to the Victorian Environmental Assessment Council (VEAC) Remnant Native Vegetation Investigation: Discussion paper August 2010**

### **1.0 VEAC Approach & Gaps**

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The Foreword to the VEAC discussion paper states: *“This is a different kind of investigation for VEAC, in that the Council does not propose to make land use recommendations for the many thousands of individual public land reserves across Victoria.”*

The VNPA also note that this investigation removes, at the request of the minister, the draft report stage. We are disappointed by these decisions, as there are some areas within the scope of the investigation which would benefit from site-specific recommendations.

It is also arguable that the decision to refrain from making specific recommendations about specific sites in the investigation does not fulfil the requirements under the VEAC Act 2001, specifically section 18 (d) *“the need to provide for the creation and preservation of a comprehensive, adequate and representative system of parks and reserves within the State of Victoria”*, which is difficult to achieve without dealing in detail with specific sites.

While we are disappointed that specific sites will not be addressed in this investigation, the VNPA welcomes the investigation, and believes there is merit in a thematic approach, outlined in Chapter 7 Future Directions. This submission responds to these themes in detail, but also outlines a number of other potential themes or strategic directions. The VNPA would like to encourage VEAC to ensure that the final report contains enough detail in its final recommendations so that they can be actionable and measurable.

The bioregional analysis provided by VEAC in the discussion paper is very useful in highlighting the contextual issues. The strategic directions are also largely heading in the right direction, but lack a coherent strategic framework to deal with key elements of the investigation’s terms of reference. Term of reference (b), (c) & (d) specifically note the need to improve ecological ‘connectivity’.

The relevant Terms of Reference include (*emphasis added*).

**b** assess these areas for their connectivity and contribution to sustainable landscapes in relation to climate change;

**c** report on the contribution of these areas of remnant native vegetation to biodiversity conservation, recreation activities, community uses, commercial opportunities, services and utilities in the context of improving connectivity with largely-intact landscapes and freehold land; and

**d** report on opportunities for management to achieve improved ecological connectivity.

While many of the strategic directions deal with specific issues which will contribute to ‘ecological connectivity’, e.g riparian land, roadsides, small reserves etc, there is not a coherent framework which brings these elements together. The White Paper, Securing Our Natural Future, flags the development and even identifies the need to develop regional scale biolinks and flagship areas ( see Chapter 2), many of which are outside largely intact areas. Unfortunately, the White Paper provides limited guidance on implementation. There is an opportunity and a challenge for VEAC in its final report to progress our understanding and

present a framework, and ideally some sense of prioritisation, of how these biolinks and flagship areas might be implemented in non-intact areas to improve ecological connectivity.

Likewise, purpose (a) of the investigation to “*identify and evaluate the condition, values, resources and uses of these areas of remnant native vegetation and associated fauna outside largely intact-landscapes*” has not been addressed in full. In the discussion paper there is virtually no discussion of “resources and uses” of native vegetation. Chapter 6 discusses, in broad terms, patterns, impacts and threats to biodiversity. In the threats section, land clearing, land use change, fire regimes and climate change are discussed, while other threatening processes are not considered in detail, including timber harvesting (commercial and firewood), pest plant and animals, grazing (especially on riparian frontages), introduced game species, and other recreational or commercial uses of remnant vegetation. According to the State of the Environment report 2008, “weeds rate second only to habitat loss as a threat to Victoria’s biodiversity...” (p311). Further, domestic and commercial firewood are a significant ‘*use and resource*’ which impacts on remnant vegetation in fragmented landscapes and is not discussed substantively.

In May 2010, the VNPA released a report *Better Protection for Special Places: Public Land Conservation Priorities for Central Victoria – Full report*, May 2010. Through this project, over 115,000 ha of public land has been identified for improved management, and tenure change in some cases, of which approximately 111,000 ha are currently state forest and 3,774 ha are in conservation reserves. The 20 priority sites are generally within the Central Goldfields and Central Victorian Uplands Bioregions. Some smaller areas identified fall in the Victorian Riverina Bioregion, and are identified as moderately cleared landscapes in the VEAC discussion paper.

A number of general themes and findings emerged as the VNPA report was developed, which in some ways mirror some of the directions flagged in the VEAC discussion paper. These are discussed, with detailed recommendations, in chapter 3 of the report and should be considered as part of our submission to the VEAC discussion paper. The key themes are:

1. New Parks – the building blocks for connectivity.
2. Priority Areas and the reserve system.
3. Investing in ecological management.
4. Building connections across the landscape.
5. Building community leadership and knowledge.
6. Timber harvesting and firewood.
7. Managing ecological dimensions of fire.

The full report and appendices can be downloaded from [www.smallparksproject.vnpa.org.au](http://www.smallparksproject.vnpa.org.au)

The following section responds to some of the key issues and discussion points highlighted in the discussion paper and make specific recommendations for issues which VEAC should consider including:

- 2.0 Public Land management, condition assessments & management of small reserves, resourcing.
- 3.0 Preventing more losses
- 4.0 Prioritise high quality patches
- 5.0 Roadsides
- 6.0 Fire management
- 7.0 Wetlands & Freshwater Dependent Ecosystems
- 8.0 Stream & Riparian Frontages.
- 9.0 Isolated large trees
- 10.0 Public land mapping

A number of attachments to the report, which provide more detail on number of issues, are also provided and should also be considered as part of this submission.

## 2.0 Public Land management, condition assessments & management of small reserves, resourcing.

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The VEAC Discussion Paper also notes that “*Small public land reserves are an important element of relictual and fragmented landscapes. However, they are difficult to manage effectively and new approaches may be required to increase management effectiveness and community support for these reserves.*”

There is an unfortunate tendency for the study to exaggerate the estimates of ecological condition of the larger protected areas, and minimise the significance of the threats these areas face. While that may not seem critical in a study aimed at remnant area management, it can actually be very damaging to the future management of many of the state’s most important protected areas, including many of our great national parks.

Part of the problem is that there has been, to date, no reliable assessment of ecological condition in land managed by Parks Victoria, so any condition assessment can only be an estimate. This situation *must* change, by implementing effective monitoring throughout the reserve system, and the report must ask for that!

Having said that, however, there is enough knowledge to avoid having to present the unreasonably rosy assessments of condition in our parks that this report gives.

For example, the condition assessments for the bioregions around the alps (pp. 92-3 Highlands Southern Fall, pp. 102-3 Highlands Northern Fall, pp.110-1 Victorian Alps) give little indication of the relatively poor condition in some areas, and growing threats in many areas.

In these regions it should be pointed out that:

- The alps bioregion has suffered greatly from the grazing of cattle and sheep over the last 150 years, and recovery will be slow.
- This recovery is now seriously compromised by the rapidly growing numbers of feral horses, feral deer and other pest animals, as well as many significant pest plant invasions such as Broom and Grey Sallow Willow. In many areas, particularly border areas near the Cobberas, horse damage to wetlands is now probably worse than it was under licensed cattle grazing.
- The Northern and Southern Fall regions have also been compromised by a series of plant and animal invasion, with the growing impact of Sambar Deer on Southern Fall rainforests now of enormous concern. (Note: neither the Northern or Southern Fall bioregions, according to the current text, have parts of their bioregions within the Alpine National Park. This error should also be fixed.)

There are many scientific papers and reports that list problems with ecosystem condition in these bioregions. It would be useful to look at a new paper (currently not officially released, but it should be available from Parks Victoria): **Worboys, Good and Spate (2010) *Caring for our Australian Alps Catchments***, A Report to the Australian Alps Liaison Committee.

This task of accurately reflecting condition assessments needs to be done in relation to all of our national parks (and other areas). And these condition assessments should NOT be based on assessments in Parks Victoria’s State of the Parks Report 2007 - they are generally not evidence-based assessments. Getting this right is very important.

To put it simply, there is little point advocating for connectivity across the landscape if the theoretically ‘intact’ areas being connected are actually deteriorating through poor or inadequate management. This is as true for large areas (typically national parks) as it is for small roadside remnants.

While the VEAC discussion paper is clearly aimed at, and must advocate for, better management of remnant areas, it should not gloss over or misrepresent the poor or deteriorating condition of larger areas. While

greatly increased resources are needed for remnant areas, it must not happen at the expense of the already greatly under-resourced protected area management. Both the larger intact areas and the smaller reserves need adequate, secure, ongoing resourcing adequate to the task..

### **Recommendations from the Auditor General**

The 2010 Auditor General's Report on *Control of Invasive Plants and Animals in Victoria's Parks*, though aimed primarily at land managed by Parks Victoria, is generally applicable to all natural areas. There is good information throughout the report, but the following general recommendations (on page ix) are a good start:

**3.** The Department of Sustainability and Environment, the Department of Primary Industries and Parks Victoria should:

- update their invasive species databases as a first priority
- enable timely input and access to these databases by responsible agencies.

**4.** Parks Victoria should:

- implement planning frameworks that incorporate risk assessment consistently across state and national parks
- structure invasive species resource allocation so that it is transparent, and funding matches the extent and ongoing nature of the problem.

**5.** Parks Victoria should improve its park-level planning so that:

- all national and state parks have current park management plans
- all plans align with current state policy and reflect the landscape scale approach to invasive species management
- specific actions to manage the threats, including targets, performance indicators, monitoring standards and responsibilities for implementing these activities are clearly documented.

**6.** Parks Victoria should improve its human resources system to accurately capture all invasive species management activity.

**7.** The Department of Sustainability and Environment, the Department of Primary Industries and Parks Victoria should implement a framework to monitor, evaluate and report on invasive species management across public and private land.

### **RECOMMENDATIONS:**

- 1. The assumptions in the Discussion Paper that larger protected areas (such as national parks) in the State are in good ecological condition should be reviewed and corrected.**
- 2. That VEAC review in detail the recommendations of the recent Auditor General's report Control of Invasive Plants and Animals in Victoria's Parks, as they relate to management of existing reserves in non-intact areas.**

### 3.0 Preventing more losses

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The VEAC discussion paper proposes the following suggestion for preventing more losses of Native Vegetation *“Maintaining and, where possible, strengthening existing measures to minimise any loss of native vegetation and to offset unavoidable losses is the most reliable, cost-effective and widely supported action to conserve remnant native vegetation”*

While the VNPA agrees with the sentiment in this discussion point, there is little detail provided on how this may be achieved. There has been less emphasis on “avoid” in recent times, and the Government’s Net Gain assessment reported in 2008 that it was still in a state of “net loss”. There is an unfortunate tendency to skip over the “avoid” or, at least, “minimise” steps and go straight to “offsets”. And offsets have not always been implemented, or have often been poorly implemented.

There is generally a lack of transparency and no authoritative accounting of ‘gains’ obtained under offsets. There also a range of assumptions inherent in habitat hectare and native vegetation framework, such as the significant gains provided by ‘enhance security’ and “existing management” (up to 60% of reported gain in some EVCs), which need to be tested and justified as delivering measurable ecological improvement through offsets.

Victoria is the most cleared state in Australia with 70% loss of native vegetation. What remains is mainly in fragmented landscapes. When clearing controls were introduced, the annual clearing rate on private land was around 10,500 ha per year. Now the loss is around 4,900 ha per year. There has only been a 50% reduction. We are still losing over 1500 MCG ovals each year in actual physical loss of native vegetation to permanent clearing. Victoria is still in a state of net loss. This is despite the 1997 commitment in the Victorian Biodiversity Strategy for Victoria to achieve a state of “net gain” by 2001 – nearly a decade ago.

*Victoria’s Native Vegetation Management – a Framework for Action 2002* (the Framework) is not only government policy approved by Cabinet, but it is statutory policy, incorporated into all planning schemes under the Planning & Environment Act 1987. On page 23 of the Framework, it says (emphasis added):

***It is important to ensure that the Net Gain approach is only applied in a way that supports the overall conservation of the great majority of existing native vegetation.*** *In applying the Net Gain approach to protection and clearance decisions at the on-ground level the steps are:*

- 1. To avoid adverse impacts, particularly through vegetation clearance.*
- 2. If impacts cannot be avoided, to minimise impacts through appropriate consideration in planning processes and expert input to project design or management.*
- 3. Identify appropriate offset options.*

Clause 15.09 of the State Planning Policy Framework reiterates this principle and applies the policy to all planning amendments and subdivisions where native vegetation is threatened, and to planning permits relating to native vegetation clearing and destruction. The emphasis is clearly on adopting options that avoid, or at least minimise losses before moving on to consider the options to offset any losses.

But it is apparent that the policy has not been established clearly enough. The State pays it little heed. DSE focuses all its initiative spending on offsets (BushBroker) and market mechanisms. It provides no central focus on the “avoid and minimise” battle. In its recommendations for the expansion of the Melbourne urban growth zone, it proposes the clearing of over 5000 hectares of Plains Grassland and other endangered vegetation types so it can raise the funding from offset commitments to create large reserves of other existing grassland.

DSE provides no centre of expert support for compliance efforts by either its own staff or councils. The Government has cost-shifted all that to councils, who, with notable exceptions, are often the least trained, the least resourced and the least interested in native vegetation conservation. DSE’s view that clearing of low conservation significance vegetation is fine provided the losses are offset is past its use-by date. Victoria will never make it to a state of net gain while the state conservation authority is focused on offsets.

## RECOMMENDATIONS:

That VEAC recommend:

1. The measures that emphasis that the “avoid” option be adopted where possible should be strengthened in the planning scheme, particularly in c15.09 and the Environmental Significance Overlay. Offsetting should be clearly identified as the last-resort option, where avoiding losses altogether is not possible and all reasonable steps to minimise losses have been taken.
2. DSE should use its EVC mapping to place an ESO, with a schedule focussed on native vegetation and habitat protection, over all areas of mapped native vegetation as a statewide planning amendment to all planning schemes. This would do two things: provide ‘early warning’ to any land developer or land manager proposing a land use change requiring clearing and, provide more stringent controls for retention of that vegetation.
3. DSE should incorporate a compliance unit focused on assisting Councils and DSE field staff in significant or precedent cases, particularly where the “avoid” or “minimise” principles are threatened.
4. The VPPs should include a Conservation Zone that can be placed over land required to be used for the conservation of natural or archaeological features in any rezoning amendment regardless of tenure. Though the PCR Zone is satisfactory in regard to uses it permits, it cannot be used to protect private land set aside in a planning amendment, even if the long term objective for that land is public ownership. A Conservation Zone would be more flexible to protect private reserves and offset areas.
5. Regardless of other requirements such as protecting and improving other remnants, any offset requirement should always include a condition to re-establish at least an equal area of the vegetation type being lost and to a specified standard. This will meant the area of total area native vegetation will not physically decline as a result of a permit to clear. The Framework’s focus on offsets centred on protection and enhancement of other remnants has failed to neutralise losses from permitted clearing.

## 4.0 Prioritise high quality patches

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The VEAC discussion paper suggests “*There is considerable merit in a program to find, document and maintain or enhance the condition of patches of vegetation with more than half a hectare of aggregate site condition score greater than 50 in the relictual and fragmented landscapes of the Victorian Volcanic Plain, Wimmera, Murray Mallee, Victorian Riverina, Dundas Tablelands, Murray Fans, Goldfields, Northern Inland Slopes and Lowan Mallee bioregions*”

In May 2010, the VNPA released a report Better Protection for Special Places: Public Land Conservation Priorities for Central Victoria – Full report, May 2010. Through this project, over 115,000 ha of public land has been identified for improved management, and tenure change in some cases, of which approximately 111,000 ha are currently state forest and 3,774 ha are in conservation reserves.

The VNPA identified Central Victoria as an area with a relatively high proportion of public land in smaller blocks across the landscape. The larger region was then broken into five sub-regions or zones of similar landscapes (see figure 4). The development of the zone or sub-regional classification system built on the approach developed by the Department of Natural Resources and Environment, Box-Ironbark Remnants Project undertaken in the 1990s (NRE 1996).

The project developed and implemented a five-step process (see Figure 3):

- Step 1: Site identification.
- Step 2: Site assessment.
- Step 3: Prioritisation.
- Step 4: On-ground assessment.
- Step 5: Discussion and recommendations.

**Step 1: Site Identification.** The Small Parks Project initially sought nominations for special areas of public land considered by regional and local environment groups to be worthy of improved management or reservation in Central Victoria. The VNPA project officer approached these groups, and through phone conversations, meetings and field trips, areas to be nominated were determined. Local groups provided significant technical information and, importantly, extensive local knowledge. This resulted in 61 locations being nominated by ten environment groups and individuals (see Appendix 2 of Small Parks report for list of participating groups and full list of sites).

**Step 2: Site Assessment.** After identification, information was collected on the natural values and threats for each location. Data sourced from the Department of Sustainability and Environment (DSE) was used to source data for the areas nominated in this project. This included data for native vegetation type or Ecological Vegetation Class (EVC) and bioregional conservation status (ie. whether endangered, depleted, vulnerable or least concern); native vegetation quality; threatened fauna records; threatened flora records; and some landscape-scale datasets such as conservation significance and landscape context (see Table 1 for summary, see Appendix 3 for detailed results).

#### **Natural values considered:**

- Area.
- Number of Ecological Vegetation Classes (EVCs).
- Number of threatened fauna (EPBC, VROT and FFG listed).
- Number of threatened flora (EPBC, VROT and FFG listed).
- Conservation significance (derived from modelled dataset).
- Connectivity (derived from modelled dataset).
- EVCs under-reserved by bioregion (ha and % of the forest area).

#### **Threats considered**

- % reserved or under Special Protection Zones.
- Hectares (and volume) designated under the wood utilisation plan.
- Threats identified by local groups and expert panel including:
  - Inappropriate fire management.
  - Firewood collection & logging.
  - Weeds & pest animals.
  - Inappropriate recreation activities.

**Step 3: Prioritisation.** The natural values, and the threats to those values, were then summarised and a scoring assessment developed. An expert panel was convened to review the data and scoring method, and the panel then ranked the identified sites.

The prioritisation process resulted in the identification of 20 priority locations. This included one cluster of small sites in the Mid-Loddon area which individually did not score highly, but were considered by the panel to comprise unique habitat refuge values that warranted their representation as a 'grouped' priority location. It also included the elevation of two Nature Conservation Reserves, Tunstalls Block west of Maryborough and Crosbie, east of Bendigo, on the basis of their exceptional fauna habitat values.

The 20 high-priority sites were then placed within sub-regions or landscape blocks. Detailed descriptions of each of the priority sites were developed, and on-ground assessment was initiated for 10 of the sites.

**Step 4: On-ground Assessment.** Suitably qualified ecological consultants were appointed to undertake vegetation quality assessments of each of the ten priority sites, which were:

- Bealiba State Forest
- Crosbie Nature Conservation Reserve
- Kingower State Forest
- Mount Cole State Forest
- Pyrenees Ranges State Forest (A and B)
- Tunstalls Nature Conservation Reserve
- Dunolly-Waanyarra State Forest
- Wellsford State Forest
- Wombat State Forest – Bullarto North
- Wombat State Forest – West

The consultants visited each of the sites and presented reports on each of the blocks, including:

- An initial reconnaissance of the forest area/reserve.
- Collection and use of relevant aerial photographs and other available mapping and resources, in order to identify appropriate habitat zones.
- Completion of a Habitat Hectare Assessment for each habitat zone.
- Determination of management opportunities for each habitat zone.

The results are incorporated in Table 2. The habitat hectare data and accompanying maps which are the final results of the vegetation assessments are in Appendix 4 of the full small park report.

**Step 5: Discussion & recommendations.** A discussion of key values, threats and management issues is in the chapters relating to each of the landscape zones. Each of the individual sites is discussed, and management and tenure recommendations made.

### **Implications for prioritisation**

This methodology, in our view, provides a good example of the type of approach which would help prioritise patches of high site condition. Step 4 particularly provides some insight into the effectiveness of the suggestion than *“...patches of vegetation with more than half a hectare of aggregate site condition score greater than 50 in the relictual or fragmented landscapes”*.

It is unclear, from the VEAC suggested direction, if the aim is to aggregate a site condition score across a whole block, or look just at the habitat zones above 50. For example, of the 10 sites assessed in detail (see Appendix 4 of the Small Parks Report) for full habitat ha assessments, only a small number of the patches assessed would have a total site condition score of greater than 50. For example, of the 10 sites, 156 habitat zones were assessed of which 26 has site condition scores above 50 (approx 17%). Many of the zones with site condition score above 50 were generally smaller habitat zones than the larger zones assessed.

Does this mean that only particular habitat zones would be prioritised, or a whole block? If a block includes zones with scores above 50, but a number of degraded areas, which reduce the average or aggregate, is it excluded or included? Degraded areas near or adjacent to high condition patches could also provide opportunities for dramatic increases in habitat quality.

The VNPA found there were significant differences in EVCs and site condition on public land when assessed compared to modelled condition in DSE data layers. While this is to be expected, it demonstrates that there is certainly merit in an on-ground assessment of any public land in fragmented landscapes.

While the idea of prioritising areas within a landscape has merit, it needs a further level of detail as to how it would work in practice. Perhaps a more sophisticated spatial analysis tool, combined with appropriate on-ground assessment, could yield a better outcome than simply relying on site condition scores. Further, site condition is a measure of condition, but not necessarily habitat value as this is partially dependent on the block site context. Any assessment should include other factors including threatened species as per natural values in step 2 of the VNPA assessment above, plus a detailed on-ground assessment. These assessments would also have the added benefit of providing a solid information base for land managers.

VEAC's view, that sites with a site condition score of greater than 50 in the larger western and northern fragmented bioregions should be the focus of a protection and conservation program, is simplistic. VEAC should bear in mind that the methodology provided to it by DSE to determine site condition is based on an analysis of reflectance from remote sensing and not from ground assessment. Even the graphs of site condition scores and landscape context scores for each bioregions (Chapter 5- Findings by bioregions) are out of 80 and 20 respectively (compared to 75 and 25 for the Frameworks field habitat scoring method).

This further highlights that the methodology does not and cannot assess some key determinants of conservation significance, such as the presence of large old tree and log components of site condition, or a site's value as habitat for threatened species. The site condition score assessed by this method is unreliable as a guide to the conservation value of the patches. Only a rapid ground assessment approach can reliably identify actual conservation values of an area.

VNPA recognises that some very small sites with highly intact vegetation can be very valuable. For very small sites (say 0.5 to 5 hectares), perhaps VEAC's decision to select a site condition score of 50 is reasonable. However, it is too high for general application and could eliminate important remnants from this process. There is a reason the State includes landscape context in determining conservation significance. All else being equal, larger, better connected patches, even with slightly lower average site condition scores, are likely to be more important and more flexible as habitat than small sites. In addition, species that have minimum requirements for habitat area are more likely to be accommodated.

Using the average landscape component for the most cleared bioregions from Graph 6, page 52 of the report, VEAC is saying that only patches with an overall habitat score in excess of 55-60 should be considered in this context. That is a pretty high score to find in these fragmented landscapes. Since most of the EVCs that comprise these bioregions are endangered or vulnerable, the vegetation becomes very high conservation significance at habitat scores of 40 (or 50 for vulnerable EVCs). VEAC's recommendation leaves significant amounts of very high conservation significance vegetation out of the proposal to identify, document and maintain or enhance remnants.

The meaning of 'aggregate site condition score' is not clear. Does it mean the aggregate of the components of site condition (large old trees, canopy, understory etc) or the aggregate of the scores of the habitat zones that comprise the patch?

Taking Tunstalls Nature Conservation Reserve as an example of on-ground assessment in the Goldfield Bioregion (VNPA Small Parks Project May 2010 pages 102/3 of the Appendices), you can see that none of the six habitat quality zones identified and assessed had a site condition score of greater than 50. However, five out of six zones exceeded an overall habitat score of 50, with three of habitat score 60 or more, but all were of very high conservation significance for the presence of threatened species. We believe the value of this reserve should be based on the value of its most significant habitat zone, which is very high conservation for both habitat score/conservation status of the EVC and for presence of threatened species. Specifically for Tunstalls Nature Conservation Reserve, we believe VEAC's proposal should be such that the whole reserve would be identified, documented and maintained or enhanced as a significant remnant. On the face of it, VEAC's proposal would exclude this reserve from such a program.

The VEAC discussion paper rightly points out that significant areas of remnant vegetation are retained on public land. The State government has already flagged various areas of the state as bio-links, flagships etc. Public land has a key role as the building blocks for larger scale connectivity, and should be addressed at a

regional level. For example, the VNPA small parks project assessed sites as part of the larger flagship or biolink areas identified in the biodiversity white paper – see Figure 1 and 2 below. VEAC should consider how the different landscape elements could be brought together to deliver ‘improved connectivity’ in the already identified biolink and flagships areas.

Further, in a joint submission between the VNPA and the Wilderness Society, in May 2009, Part B, terms of reference for the VEAC Remnant Native Vegetation Investigation, we outlined a detailed case for additional ‘thematic’ or landscape protection for South West Victoria, which appears to have been largely ignored in the discussion paper.

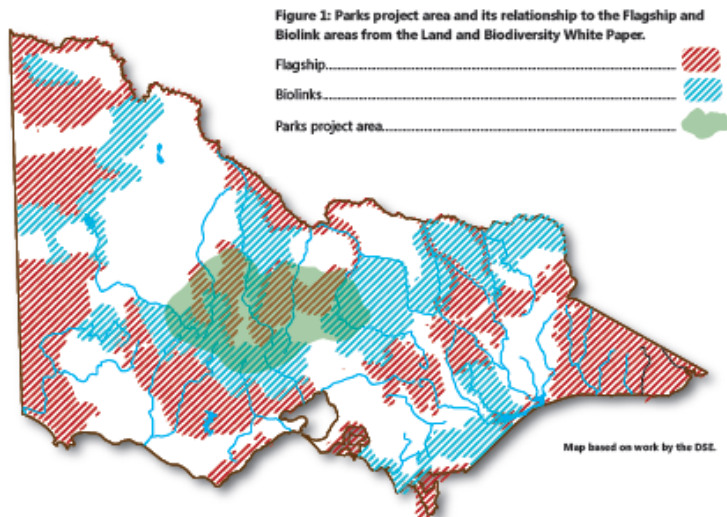
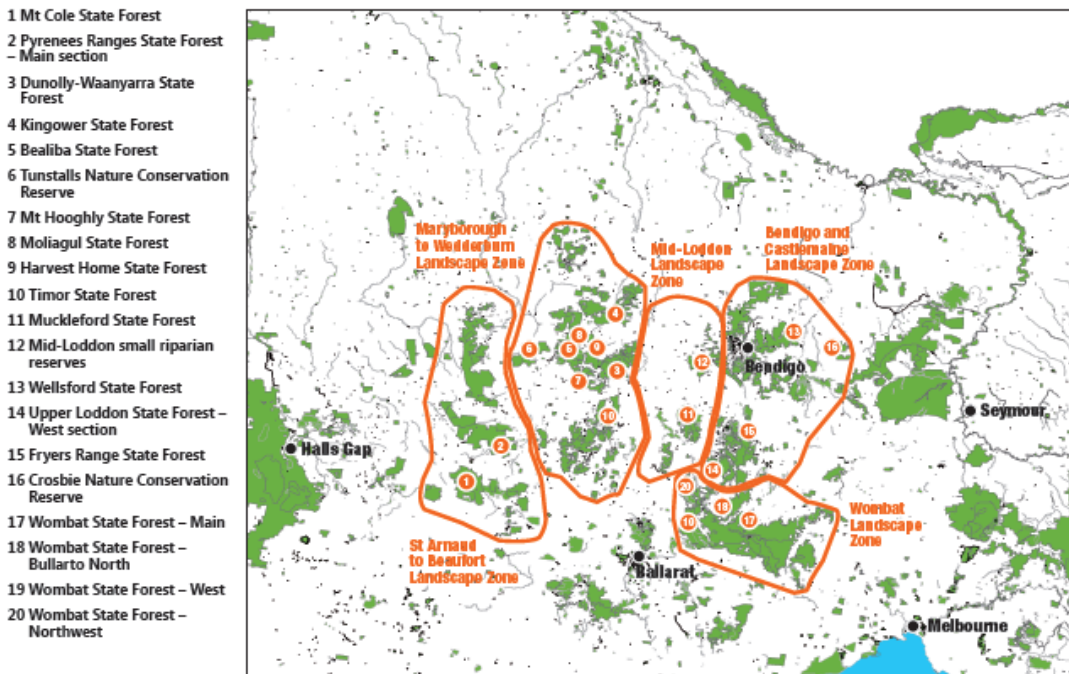


Figure 2: Landscape Zones – Central Victoria



## RECOMMENDATIONS:

1. **VEAC lower the threshold for the aggregate site-condition score for the program to find, document and maintain or enhance the condition of patches >0.5 hectare in the largest of the most-cleared bioregions (plus Goldfields, Northern Inland Slopes and Lowan Mallee) from 50 to 40. The score should be based on the highest scoring zone of area exceeding 20% of the remnant area, rather than the average of the scores for the patch.**
2. **VEAC use the full habitat score of 50 or more for larger remnants in determining significant remnants, rather than using the site condition score alone.**
3. **VEAC take into account additional criteria (such as threatened species) and the role of the patches in broader landscape restoration such as the consistency with landscape corridors (bio links) and flagship areas as identified in the White Paper on Biodiversity.**
4. **That VEAC consider the both the general recommendations and detailed management and tenure recommendations of the *VNPA Report, Better Protection for Special Places: Public Land Conservation Priorities for Central Victoria, Full Report, May 2010.***

## 5.0 Roadsides

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### Unmade Roads

The Discussion Paper focuses on the very significant importance of roadside vegetation, particularly in the highly fragmented, most-cleared landscapes. Although the paper acknowledges that unused roads comprise an estimated 122,490 hectares (page 33) and are included in the Crown Land category: Services and utilities – road, rail and other service easements (pipelines and power), they are often as important as roadsides in fragmented landscapes.

Many unmade roads are highly unlikely to be constructed in any realistic planning future. Although DSE manages the grazing leases on unmade roads, Councils are responsible for all roads, including unmade roads, which are not listed as “State” roads under the *Road Management Act 2004*. Periodically, councils request DSE to lift the road reservation on unmade roads for which they do not see a future need and for which they do not wish to remain responsible. If DSE agrees, the reservation is lifted and DSE usually offers the first right of purchase to the neighbouring landowner.

We believe that where these roadsides have native vegetation, DSE should only allow these roads to become freehold if the vegetation is simultaneously protected by an on-title conservation agreement.

### RECOMMENDATION:

- **The category “Roadsides” should be expanded to cover unmade-road reserves, rail reserves and other service easements.**

### Fire management on Roadsides

The 2009 Bushfire Royal Commission recommendations 60, 61 and 62 are concerned with roadside clearing and fuel reduction issues. Recommendation 60 is for exemption under the Victorian planning provisions of c52.17-6 to allow a wide range of roadside works involving clearing to reduce fire risk.

In the 1980s, Victoria led the nation in funding plans and a State Roadside Management Committee to identify, protect and strategically enhance valuable roadside native vegetation. The Commission now seeks to make its destruction easier and unregulated in a most non-strategic manner.

The VEAC study demonstrates that in some of the most fragmented or cleared areas of the state, roadsides make up a high proportion of remaining native vegetation and habitat. “One of the key findings of this investigation has been the importance, by area, of native vegetation on road reserves in many Victorian landscapes – probably constituting around half the native vegetation in some areas. In this setting, native

vegetation along road reserves is not just the connecting link between the important remnant habitat; it is the remaining habitat”

In general terms the highest conservation values on roadsides are likely to be on roadsides within the most fragmented or cleared landscapes. These landscapes are likely to have reduced fuel loads overall due to a lack of vegetation across the broader landscape. On the other hand, in extensively forested areas of the state, roadside vegetation may be of relatively lower conservation significance, and the need for fuel reduction may be greater. In all landscapes roadside vegetation can have significant social and commercial value as part of tourism and amenity value.

**For these reasons, changes to clearing controls on roadsides should not be a one size fits all.** The regulatory response needs to take into account both the ecological importance and fire safety aspects, informed by a state-wide integrated assessment. We recognise the need to reduce bushfire risk on important access roads, particularly where the roadside is through forest or other extensive native vegetation blocks where the roadside vegetation itself is of less critical importance.

### **RECOMMENDATIONS:**

**Any roadside clearing controls should be developed with different rules for highly fragmented, relative intact or highly forested areas, as follows:**

- 1. In highly fragmented or the most cleared landscapes priority should given to the retention and restoration of native vegetation. Where the integrated assessment identifies high-risk areas that pose a direct threat to human life, the possibility of establishing alternative escape routes should be explored.**
- 2. In moderately cleared landscapes where roadsides contain more than 5% of all remaining vegetation in an area, strict retention and restoration controls should apply, but any high fire risks identified in detailed ecological and fire risk assessment should be addressed.**
- 3. Intact landscapes or highly forested areas should have rules that provide specifically for a new exemption where the purpose of the works is to reduce bushfire risk, as recommended by the Commission.**
- 4. The government coordinate the development of a state-wide integrated ecological and fire risk assessment of all roadsides, including both Vic Roads and Municipal roads. This should be funded and undertaken by the state with input from local government and Vic Roads. At a local area, the plan should identify roads critical for evacuation and any additional roadside exemptions should be restricted to these roads.**
- 5. Any exemption should be based on avoiding vegetation removal where possible, or at least minimising the losses, particularly where a roadside management plan identifies high conservation roadside area. The values of these areas should be protected. In some cases, it may be possible to employ methods which have minimal impact on roadside biodiversity values or even enhance them. For example, ecological burning of grasslands is more effective than ploughing roadside strips which can promote invasion by more-vigorous flammable exotic pasture grasses like Phalaris.**
- 6. In all areas, care must be taken to avoid perverse outcomes. In some circumstances additional tree or shrub removal may be needed along some priority escape roads, but in other sites there might be perverse effects, such as creating a wind tunnel.**

## 6.0 Fire management

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The Bushfire Royal Commission identified serious gaps in our understanding of ecological fire regimes, while simultaneously asking for a considerable increase in fuel reduction burning. This is a situation that is highly problematic for land managers, if ecological values of natural areas are to be maintained in the long-term while public safety considerations are also managed well.

The Commission's recommendation 57 asks DSE to: "...report annually on prescribed burning outcomes in a manner that meets public accountability objectives, including publishing details of targets, area burnt, funds expended on the program, and impacts on biodiversity." And recommendation 58 asks DSE to "...significantly upgrade its program of long-term data collection to monitor and model the effects of its prescribed burning programs and of bushfires on biodiversity in Victoria."

To put those (and the other recommendations) in context:

Currently, a fire planning area is divided into four management burn zones:

- Zone 1: burns for fuel reduction purposes
- Zone 2: burns primarily for fuel reduction, but with the intention of also serving ecological purposes.
- Zone 3: burns primarily for ecological purposes, but with the intention of also assisting fuel reduction.
- Zone 4: no management burning.

Zones 2 & 3 clearly require the application of any current understanding of appropriate burning regimes now, and the rapid development of that understanding in the future. We need the *immediate* application of tolerable fire intervals (TFIs) for each Ecological Vegetation Division (EVD) in Zone 2 (where possible) and Zone 3 at all times.

Also, the application of these tolerable fire intervals should not always be at the minimum TFI, but allow for the greatest range of age classes possible, as a precautionary measure until our knowledge improves.

It should be made clear that EVDs are only a rough grouping of ecological vegetation classes (EVCs), and that the current TFIs only *approximate* suitable fire regimes for vascular plants within them. TFIs do *not* take into account the fire tolerance of fauna, let alone the great majority of native species: the invertebrates, bryophytes and fungi. In other words, there is a lot to learn here.

It should be made clear that all TFIs should be considered as interim TFIs, and that long-term monitoring programs should be set up to build our understanding of the impacts of bushfires and planned burns on the planning area's natural values, and on the effectiveness of fuel reduction programs.

This VEAC study should ask for the *immediate* establishment of baseline data across the planning area, and the establishment of long-term monitoring programs sufficient to ensure science-base fire planning in the future. This is in line with recommendations from the Royal Commission.

The long-term strategy should be the establishment of ecologically secure fire management programs for both remnants and larger natural areas across the state. Anything less could leave these areas highly compromised, and in a reduced capacity to deal with other impacts, such as pest plant and animal invasion and climate impacts.

Highly fragmented or isolated areas should be burnt with great care, as those species that depend on recolonisation from unburnt areas after fire may become locally extinct when the entire patch is burnt. This situation applies to many invertebrates, as well as the more easily monitored species such as vertebrates and vascular plants.

The sensible path to follow (one which allows effective burning to continue and also ensures the ongoing refinement of burn targets) would be to move as swiftly as possible towards a series of science-based local/regional planned burning targets across the state. These could for example include:

- Initially, a minimum target of 5% per annum would apply immediately to the ‘foothill forests’ (largely the drier eucalypt forests around the central highlands).
- This would be accompanied by a science-based long-term monitoring program that would assess the effectiveness of planned burns for fuel reduction and for biodiversity protection.
- A series of interim burn targets should be set up across Victoria on a regional basis, following careful assessment of prescriptions for fuel reduction and biodiversity protection in the various fuel management zones.
- The monitoring program should be rolled out across all of these areas, as the interim targets are set. Importantly, it will take time to build the skills and resources to do this properly.
- (Burning in these areas, subject to current planning processes, would continue in the meantime.)
- Local/regional targets should take account of wildfire in that area, and be accountable for meeting local prescriptions and objectives. A failure to achieve the target in one area would not cause an increase in burning elsewhere. Similarly, exceeding a local target in one area would not cause less burning elsewhere.
- There should be a periodic re-assessment, every four years, of local/regional targets and burn prescriptions, based on the monitoring program and any other appropriate research.

More detailed response to the Bushfire Royal Commission can be found on the VNPA website [www.fire.vnpa.org.au](http://www.fire.vnpa.org.au)

## RECOMMENDATIONS:

### VEAC should:

1. **Review the Royal Commission findings and opportunities for the development regional planned burning targets and prescriptions in non-intact landscapes.**
2. **Recommend particular care for burning prescriptions, and their implementation, for relatively isolated fragments.**
3. **Review and recommend scope of a long term monitoring program for planned burning, particularly in non-intact landscapes.**

## 7.0 Wetlands & Freshwater Dependent Ecosystems

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The VEAC discussion paper 7.36 notes that a *“Special approach needs to be developed to address a number of issues specific to wetlands, waterways, floodplains and riparian areas”*

Victorian freshwater dependant ecosystems (FWDEs) include wetlands, rivers, estuarine ecosystems and groundwater dependant ecosystems. They have been subjected to over-extraction of water for irrigation, reduced environmental flows, pressure from agricultural land use and other human impacts. A range of policies is required to address these impacts, all of which are manageable.

Victoria’s natural ecosystems support at least 3,140 native species of vascular plants, 900 lichens, 750 mosses and liverworts, 111 mammals, 447 birds, 46 freshwater and 600 marine fish, 133 reptiles, 33 amphibians, and an untold (but very large) number of invertebrates, fungi and algae (DSE 2003).

Victoria has a greater density of rivers and streams than any other mainland State. There are 3,820 named watercourses in Victoria, with a total length of 56,000 km. In addition, there are numerous tributaries (and sometimes, distributaries) associated with these named watercourses.

Victoria has 17 river segments/corridors with Heritage River status (LCC 1991). They are essentially river reaches judged to have at least one value of national or international significance and at least four values of State significance. The types of values considered span a wide spectrum and include biological attributes

(e.g. botanical and faunal qualities, diversity of native fish species and presence of endangered or vulnerable fish species), environmental attributes (e.g. geological and geomorphological features), scenic qualities, cultural heritage and recreational qualities (LCC 1991). The 17 Heritage River corridors occur along the Mitta Mitta, Ovens, Howqua, Big, Goulburn, Wimmera, Genoa, Bemm (and its tributaries, Goolengook, Arte, and Errinundra), Snowy, Suggan Buggan and Berrima, Upper Buchan, Mitchell and Wonnangatta, Thomson, Yarra, Lerderderg, Aire, and Glenelg Rivers (LCC 1991).

Victoria has approximately 16,700 non-flowing wetlands covering 540,900 hectares, of which 12,800 (covering 432,800 hectares) are natural and the remaining 3,900 wetlands are artificial (DSE 2007b). Victoria also has 11 internationally important wetland systems that have been listed as Ramsar sites under the Convention on Wetlands. 10 of these were listed in 1982 and include: Corner Inlet, Gippsland Lakes, Barmah Forest, Gunbower Forest, Hattah Kulkyne Lakes, Kerang Wetlands, Lake Albacutya, Port Phillip Bay (Western Shoreline) and Bellarine Peninsula, Western District Lakes, and Western Port. Victoria's latest Ramsar site is the Edithvale Seaford Wetlands, in southeast metropolitan Melbourne, and was listed in August 2001. Victoria also has 159 wetlands of national importance.

Wetlands support numerous threatened species, including 21 freshwater and estuarine fish species listed under the Flora and Fauna Guarantee Act 1988. By 1994, 37 percent of naturally occurring wetland area had been lost, mainly due to drainage. The wetland inventory has not been updated since then (SOE 2008).

The last comprehensive scientific assessment into Victoria's Freshwater dependant ecosystems was carried out by the Land Conservation Council in 1991. Since then a range of strategies and reports on FWDEs have been prepared, often with competing objectives and no overriding environmental direction. Clear direction for the future use and management of FWDEs in Victoria is required and an independent VEAC investigation is the best proven model to undertake this important piece of work.

Wetlands, rivers, estuarine ecosystems and groundwater systems all fall into the FWDE category and urgently require a strong commitment to their protection. Complex interactions exist between surface water and groundwater systems. These interactions are currently poorly understood in Victoria. More detailed methodologies are required to identify priorities and maximize protection of freshwater dependent ecosystems.

**Existing data sets such as the index of stream condition, while useful, are not a rigorous or data-driven tool for assessing and planning for freshwater dependent ecosystems. There is an urgent need to improve our understanding and planning for freshwater dependent ecosystems, through development of freshwater spatial prioritisation.**

The recently developed quantitative methods and spatial tools have the potential to transform and significantly improve prioritization and decision-making processes. Essentially, the GIS stream network database and species distribution models (SDMs) enable spatially explicit, ecologically interpretable predictions of biodiversity distribution patterns in river networks for any region of interest in Victoria. These predictions can be visualised at fine scales and the spatial models constitute the basic inputs for spatial conservation prioritization using sophisticated optimization tools. A data-driven, quantitative approach to prioritization confers the following advantages:

- Explicit and therefore repeatable and auditable
- Use of a mathematical technique enforces a degree of rigour in problem formulation and all intermediary steps towards implementation. For instance, with respect to the specification of high-order goals, means objectives and constraints.
- Features 1 & 2 encompass documentation processes and contribute to the construction of a tangible knowledge base for the problem
- Enhances scientific credibility
- Enables the prioritization process to be linked to monitoring, evaluation and reporting of progress towards achieving conservation goals (Ferrier & Wintle 2009)

In theory it enables the prioritization process to be linked to processes that address influences on biodiversity persistence (e.g. dispersal and connectivity; metapopulation dynamics; population viability analyses etc) and allows these to be taken into account.

**A bibliography for this section is available on request.**

### **Groundwater Dependent Ecosystems (GDE)**

Rivers and streams with perennial flow and permanent wetlands in a floodplain system are often examples of GDEs reliant on the surface expression of groundwater, as they are likely to be deriving a significant portion of their baseflow or freshwater input from groundwater discharge. Examples of the second type of GDE include River Red Gum Forests (such as those along the lower River Murray) and paperbark swamp forests. The third type of GDE is little known and appreciated, being largely 'invisible'.

As Tomlinson & Boulton (2008) concluded from their overview of the biodiversity of subsurface groundwater ecosystems, there are extensive gaps in our knowledge of the distribution, composition and biodiversity value of Australian stygofauna (groundwater animals). Despite this incomplete inventory, stygofauna are present across a variety of Australian subsurface environments and are generally characterized by high diversity and local scale endemism (Boulton *et al.* 2003). Groundwater ecosystems are relatively stable environments (compared to surface water environments) and may be very persistent through geological time through major episodes of climate change, ice ages, tectonic and orogenic events. This means some aquifers may be "living museums containing a sample of the lineages that comprised the faunas from various geological periods" (Humphreys 2009) and are of great scientific interest.

Potentially threatening processes to groundwater-dependent ecosystems fall mainly into the categories of habitat loss and degradation and over-exploitation. For instance, alteration of the natural flow regime and changes in land use (e.g. removal of native vegetation cover in the catchment, grazing and accelerated erosion of riparian zone and application of fertilizers) have the potential to increase sediment input and also inputs of nitrates, phosphates and toxic substances which can result in changes to groundwater systems. Increased inputs of fine sediments can clog the top layer of channel sediments, reducing pore volume, consolidating the sediment matrix and decreasing permeability of the stream bed (Brunke & Gonser 1997). This can threaten the habitat and consequently, distribution and abundance of microorganisms, meiofauna, and macroinvertebrates within the sediments. Hindrance of exchange processes between surface water and groundwater and over-loading of pollutants and contaminants can also affect the biodiversity and the nature and rates of biogeochemical processing of the hyporheic zone (Boulton *et al.* 2003; Tomlinson & Boulton 2008).

In Victoria, groundwater provides drinking water for approximately 80 cities and towns including Geelong, Ballarat, Portland and Sale. It is also used to irrigate crops, supply drinking water for stock and for industrial purposes (DSE 2009c). Like surface water, groundwater is allocated for commercial and irrigation uses under licensing arrangements under the *Water Act 1989*.

Groundwaters are only recharged when surface waters seep into aquifers. Therefore, over-exploitation or the extraction of groundwater at rates exceeding recharge depletes aquifers. Human activities that disrupt the hydrological cycle in ways that change the quantity and quality of recharge (e.g. reduction in flood frequencies and magnitudes) also impact on groundwater levels, flow and quality (Tomlinson & Boulton 2008). Loss of storage volume and lowering of water levels through overextraction necessarily reduces habitat for stygofauna (Tomlinson & Boulton 2008). Diminished contributions to river baseflows and permanent wetlands has repercussions for biodiversity and ecological functions and processes (Boulton & Hancock 2006). The lowering of water levels below the accessible rooting depth of aboveground terrestrial vegetation compromises the health and viability of these ecosystems and their associated fauna (Groom *et al.* 2000).

The consequence of excessive recharge is familiar to most readers as the mechanism driving dryland salinity. Human disruption of the hydrological cycle via widespread land clearing, replacement of deep rooted native vegetation with shallow rooted crops and pasture, river regulation and irrigation all contribute to excessive recharge of aquifers. Rising water levels then intercept salt stored in previously unsaturated layers and transport it upwards, resulting in stream and land salinization. Halse *et al.* (2003) considered that the input of saline groundwater can pose a substantial threat to the biodiversity of surface wetlands and rivers and can drive shifts in faunal assemblage towards more salt tolerant taxa. The thickness of the saturated zone and slow groundwater flow rates result in time lags before the impacts of pressures such as extraction or excessive recharge are apparent. Similar time lags can be expected before the efficacy of remediation efforts is known.

## RECOMMENDATIONS:

### VEAC should consider:

1. **There is substantial gap in information and policy regarding groundwater dependent ecosystems and interaction with surface water and ultimately terrestrial ecosystems and native vegetation. A detailed assessment and research program for groundwater dependent ecosystems and approaches to management needs to be recommended.**
2. **There is an urgent need to improve our understanding and planning for freshwater dependent ecosystems, through development of freshwater spatial prioritisation. VEAC should recommend a detailed conservation prioritisation process be undertaken across Victoria, perhaps to inform a broader state-wide investigation as described below.**
3. **Recommend a comprehensive state wide VEAC investigation, or similar, into freshwater dependant ecosystems across Victoria by 2012.**

## 8.0 Stream & Riparian Frontages.

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The VEAC discussion paper notes that in terms of both extent and ecological importance of riparian land. The report notes that *“actions to maintain, improve and augment native vegetation on stream frontages are among the most likely to be highly beneficial for improving ecological connectivity and conserving biodiversity”*

There is substantial evidence to support the ecological benefits of riparian restoration, including:

- Riparian zones represent the interface between aquatic and terrestrial ecosystems.
- They are often areas of exceptionally high productivity and diversity, and fulfil many key ecological roles integral to the functioning of both aquatic and terrestrial ecosystems, including:
  - Moderating stream temperature
  - Mediating the input of sediment and nutrients into streams—a major determinant of water quality
  - Providing habitat and food sources for aquatic organisms
  - Contributing to terrestrial food webs
  - Providing habitat for obligate and opportunistic riparian biota
  - Acting as dispersal corridors and refuges for terrestrial plants and animals—a role that is amplified in fragmented landscapes, during times of drought, and under forecasted climate change scenarios
- Riparian zones have been extensively degraded in Victoria:
  - Riparian vegetation has been denuded along more than half of the length of Victoria's rivers and only 14% remains in excellent condition (Norris *et al.* 2001; DSE 2005)
  - Many ecological functions have been compromised or, in some cases, lost
- Case-studies from past riparian restoration projects in Victoria and overseas demonstrate that efforts to restore riparian zones—primarily stock exclusion and revegetation—may provide many ecological benefits, including improved:
  - Water quality
  - Aquatic biodiversity
  - Terrestrial biodiversity
  - Resistance and resilience of plant and animal populations
  - Conservation of threatened species
- Evidence suggests that to achieve these benefits, efforts to restore riparian zones must occur at appropriately large spatial scales and other drivers of degradation (e.g. surrounding land-use and insufficient or altered flow) must be addressed.
- Past studies and scientific literature provide guidelines for the effective design and implementation of restoration efforts:
  - Targets should be set to inform on-ground works
  - Multiple drivers of degradation and potential constraints to recovery should be identified, prioritised and addressed
  - An adaptive monitoring regime should be employed to inform and improve restoration efficiency and effectiveness over time

More detail on these issues can be found [www.riparianland.vnpa.org.au](http://www.riparianland.vnpa.org.au)

### **Riparian Land Policy Context.**

If the Victorian Government is to meet its own targets and protect water quality and river health for the state's rivers and their communities, major increases in funding for riparian works must be made over the next four years.

The VNPA plan for action (outlined below) will deliver much-needed improvements and see Victoria's public riparian land become some of the best managed in Australia. These changes will also help the Victorian Government meet many of its obligations under national and state agreements and legislation.

The White Paper on Land Biodiversity proposes to complete implementation of new management standards for riparian land by 2029 (See Action 6.4.5). This is an unacceptably long timeline which would see biodiversity, water quality and river health decline for another 20 years. Changes to the way we manage public riparian land should be rapidly accelerated over the next five years.

Victoria's public riparian land has been identified by government agencies, Catchment Management Authorities and scientists as a major priority for action and better management. Stock access continues to damage rivers and water quality, and impact upon threatened species. The 2008 State of the Environment report recommended that grazing licences on Crown water frontages should end, and the Biodiversity White Paper has mapped a way forward. However the timeline proposed extends to 2029 and will allow biodiversity, water quality and river health to further decline for another 20 years. Changes to management should be rapidly accelerated over the next 4 years.

The state government should immediately double current expenditure of public riparian land programs, including creating 10 new state-wide Riparian Land Officers charged with assessment, enforcement and management of public riparian land; and by 2012:

- Replace Victorian Crown water frontage licences with riparian conservation licences to protect priority river reaches
- Identify and complete strategic additions to the National Reserve System
- Initiate a voluntary program for licence holders in lower priority river reaches
- Initiate a Waterway Guardian/Stewardship Program
- Remove all unauthorised activities from unlicensed frontages.

All riparian lands should be brought up to the new management standards with robust licensee or landholder agreements in place by 2016.

To expand on these policy ideas, further detail is provided below:

#### **1) Additions to the National Reserve System:**

Identify conservation significance of riparian land based on:

- JANIS criteria and national commitments.
- Connectivity.
- Management integrity (eg adjacent to existing conservation reserves).

Land identified as suitable for addition to the reserve estate should be re-classified as protected areas e.g Nature Conservation Reserve, or State Park, and reserved accordingly to help Victoria meet national commitments for reservation.

## **2) Conservation Licences**

For areas identified as not suitable for addition to the reserve system but that are in moderate to good condition, a conservation licence on that Crown Water Frontage should be implemented:

- The conservation licence should specify minimum management actions, such as fencing, stock removal/grazing regimes, weed control, and would be offered at a peppercorn rent based on delivery of conservation activities.
- Priority should be given to identified priority river reaches, Heritage Rivers and river reaches where other riparian improvements are taking place.

## **3) Voluntary program for licence holders**

Voluntary uptake in first three years where government offers a 'special offer' for boundary fencing /off river watering in return for improved management and environmental outcomes.

Once this period has expired, fencing of unfenced crown land boundaries would revert to landholder responsibility. If the new rules are not adhered to, the grazing licence would be cancelled and the landholder would be responsible for boundary fencing.

Where licences are cancelled, a committee of management could be appointed. This may consist of any of the following: DSE, Parks Victoria, Catchment Management Authorities, local government, NGOs or adjacent landholders.

## **4) Unlicensed frontages**

Consistent with Victorian legislation, all unauthorised activities on any piece of riparian public land should cease immediately.

## **5) Waterway guardian/stewardship program**

A program should be established for landholders with significant conservation assets adjacent to crown river frontages and incentives provided for complimentary conservation management. For example, in other areas new agreements could be established with adjoining landholders to improve the condition of river frontages, and landholders could nominate either to:

- Fence the frontage and manage their grazing regime in accordance with ecological outcomes, via a management plan.
- Transfer the grazing licence to a 'conservation' licence with a reduced cost and management in accordance with ecological objectives.

**The VNPA recommends in cases where there is evidence of no improvement or action to improve condition, licences should be permanently cancelled.**

## **6) Resourcing**

A significant increase in resourcing for riparian land management over the next four years should occur. This requires a doubling of current expenditure to \$20 million a year and include ten new full time riparian land officers be created between DSE and Catchment Management Authorities (CMA) per current CMA region to assess, monitor and enforce these new arrangements.

## RECOMMENDATIONS:

VEAC should recommend that:

1. **The Victorian Government immediately double current expenditure of public riparian land programs, including creating 10 new state-wide Riparian Land Officers charged with assessment, enforcement and management of public riparian land**
2. **By 2012, scrap Victorian Crown water frontage licences and introduce a Riparian Conservation Licence to protect priority river reaches and remove all unauthorised activities from unlicensed frontages**
3. **Bring all riparian land up to the new standard with robust licences or landholder agreements in place by 2016.**

A detailed discussion of the policy context, policy options and strategic role of the crown frontage estate can be found on [www.riparianland.vnpa.org.au](http://www.riparianland.vnpa.org.au)

### 9.0 Isolated large trees

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The VEAC Discussion Paper, in 7.3.12, page 140, says that *Specific efforts are required to maximise the retention and replacement of large trees and very small patches isolated from other native vegetation.*

The study says that it did not address isolated large paddock trees because it was not possible to detect and incorporate isolated trees into a remote-sensed statewide-level vegetation analysis. It suggests target efforts may be required to address this problem.

The VNPA supports these sentiments but notes that Victoria's current native vegetation policy does not recognise the importance of the habitat value of isolated or sparsely-scattered old trees. Some of these trees are many centuries old and the values they provide cannot be replaced in any practical timeframe. Where possible, retention is paramount. Such trees have an important ecological role that is superficially addressed in *Victoria's Native Vegetation Management - a Framework for Action 2002*.

The Framework takes a narrow botanical view of the value of old trees. Large old trees are said to be important (on page 25) as "the most common way that some vegetation types such as Plains Grassy Woodlands still occur and the best stands represent possible options for the recovery of these vegetation types".

Consistent with this sentiment, when it assigns conservation significance to scattered old trees, the Framework only considers their potential for re-establishing threatened vegetation types rather than considering their general habitat value.

For example, it assigns "low" conservation significance to huge old trees that are remnant from EVCs of depleted or least concern conservation status because it is not a priority to re-establish more of that vegetation type. Only if it can be shown that the tree specifically provides habitat to a rare or threatened species is its value as habitat considered when assessing conservation significance. This is a ludicrous situation.

Large old paddock trees, with their numerous fissures, hollows and crannies, provide a wealth of habitat for a diverse range of native birds, bats and other fauna. For example, in various papers, Dr Lindy Lumsden and Andrew Bennet (Bennett, A. and Lumsden, L. (2003) *Bats and Paddock Trees*) have demonstrated the role old paddock trees play in providing habitat for large numbers of bats, whose pivotal role in the landscape includes significant levels of insect control.

These creatures make no distinction between whether these remnant old trees were formerly part of a threatened or common vegetation type. A gnarled 400-year-old Red Box with a trunk two metres thick, in a farm paddock that was formerly part of “least concern” Grassy Dry Forest is just as highly valued as habitat as a similarly old remnant Red Gum from endangered” Plains Grassy Woodland. The only important thing is the habitat opportunities the trees provide both in terms of shelter and forage.

Under Framework policy, the former is assessed as being of low conservation significance and able to be removed if an offset is provided. The offset can be with as little as five replacement seedlings in some locations. The latter is considered as high conservation significance, with clearing generally not permitted and far more demanding offsets where clearing is allowed.

Similarly, the Framework assigns more value to old trees in larger paddocks with at least eight trees per hectare in comparison to the value it assigns to solitary or sparsely-scattered old trees. Again the only focus is their value in reconstructing the EVC. If lone or sparsely occurring old trees are to be removed, the Framework allows them to be replaced with a handful of seedlings, as if this would compensate in any way for the wealth of habitat that is being lost. Nowhere in the Framework is the value of an old tree as habitat recognised or addressed.

In fact, DSE’s own view is contradictory. Unless there is a threatened species or other site values associated with a large old tree, DSE evaluates its conservation significance based on the conservation status EVC from which it came and therefore how important that EVC is for restoration. However, when it comes to offsetting the loss of an old tree, it says for off-site offsets, a dead old tree can be used to offset the loss of a live old tree. Unbelievable! Obviously, the only value of an old dead tree is its very temporary value as habitat, which would be far more temporary than provided by a healthy live old tree. The use of dead trees as offsets for live is contrary to Framework policy which says that while *recruiting new trees for the future is very important, replacement ratios cannot address the need to retain, and improve the on-going survival of, as many large old trees as possible in the current landscape.* Protecting old dead trees contributes nothing to this objective. Old trees should be assessed for their capacity to restore EVCs or for their on-going survival for habitat value or both? If the second is a key factor, every large old paddock tree is of considerable conservation significance regardless of the conservation status of its former EVC.

The need to review this principle applies equally to scattered trees on Crown land as to freehold land. It is unsatisfactory that only the botanical value of old trees be recognised in assessing their conservation value.

#### **RECOMMENDATION:**

- **Victoria’s policy about assessing the conservation significance and offsetting loss of medium, large and very large old trees be revised to reflect the faunal habitat value of individual and sparsely located old trees**

## **10.0 Public land mapping**

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Victoria’s mapping of native vegetation type and extent is based on satellite imagery modelling, and is poorly field tested. In particular, the new grassland mapping shows a threefold increase in the extent of grassland in the volcanic plains. However, when field-assessed by ecological experts, a significant proportion is identified as either exotic or regrowth cropping land, referred to by DSE as degraded treeless vegetation or secondary grasslands.

The effectiveness of public land ecological management programs such as weed control are not well monitored or reported in Victoria. For example, we do not have maps of public land showing the degree of environmental weediness in conservation reserves that are reassessed from time to time to demonstrate whether the situation is improving or in decline.

#### **RECOMMENDATION:**

- **VEAC should recommend that, regardless of whether the vegetation is in largely cleared, moderately cleared or largely uncleared landscapes, DSE should produce base mapping of degree of environmental weediness.**