

# Reforming native vegetation offset rules in Victoria

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### For further information on this report please contact:

**Nicola Rivers, Law Reform Director**, Environment Defenders Office (Victoria) Ltd

Telephone: 03 8341 3100

Email: [nicola.rivers@edo.org.au](mailto:nicola.rivers@edo.org.au)

#### Environment Defenders Office (Vic) Ltd

Telephone: 03 8341 3100 (Melbourne metropolitan area)

1300 EDOVIC (1300 336842) (Local call cost for callers outside Melbourne metropolitan area)

Facsimile: 03 8341 3111

Email: [edovic@edo.org.au](mailto:edovic@edo.org.au)

Website: [www.edovic.org.au](http://www.edovic.org.au)

Post: PO Box 12123, A'Beckett Street VIC 8006

Address: Level 3, the 60L Green Building, 60 Leicester Street, Carlton

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## Executive Summary

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The regulation of native vegetation clearing in Victoria includes provision for ‘unavoidable’ clearing to be compensated for by ‘offsetting’ that damage, either in the same area or, in certain instances, elsewhere. Native vegetation clearing controls primarily operate under the Victorian planning system, informed by overarching policy as contained in the Victorian Native Vegetation Management Framework. Guiding rules and principles regarding native vegetation offsets are contained, in part, in the Framework and otherwise in Departmental technical guidance.

Criticisms of offsetting include that:

- the frequent recourse to offsetting undermines their purported residual character;
- the loss of actual, discrete patches of native vegetation cannot practically or logically be replaced by offsetting;
- metrics (habitat hectares) used to calculate vegetation loss and offsetting are not sufficient to their purpose;
- the resort of offsetting is legitimising continued loss of native vegetation;
- very few empirical studies of the performance of offset arrangements have been conducted; and
- the governance and administration of offset arrangements (including monitoring and enforcement) is poor and inadequate.

In response to weaknesses and problems in the offsets system, we propose a series of reforms. These reforms are summarised in recommendations below. Generally, they seek to identify more clearly the environmental objectives of offsetting; establish greater rigour and effectiveness in offset policies, rules and processes; and achieve a more robust institutional and administrative framework in support of offsetting practices.

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## RECOMMENDATIONS

- Offsets policy should state that the underlying objective of the offsets scheme is to achieve neutralising or beneficial landscape impacts in the context of any native vegetation loss. Offsets policy should state expressly that offsets are to contribute to the Primary Goal of the Native Vegetation Management Framework.
- The concept of ‘high risk’ native vegetation clearing should be developed that encompasses clearing native vegetation of high or very high conservation significance and/ or where native vegetation is or comprises part of a ‘critical environmental asset’.
- A strong and effective presumption against high-risk native vegetation clearing should be established in law and policy.
- Scoring for prior improvement gains should be abolished. Legally enforceable obligations to protect subject land (land that is the site of native vegetation offsets) for conservation purposes should be a precondition of any offsetting arrangement. Offsets should only be available and calculable in relation to ‘improvement gains’, or actions additional to obligations required under any duty of care or other legal requirement.
- The existing ‘like-for-like’ rules applying to offsets should be retained.
- Metrics (‘habitat hectare’) used in accounting for offset arrangements should be revised and account should be taken of landscape protection functions, landscape resilience, and relevant social, cultural or amenity functions of subject land (both land to be cleared and to be used for offsets).
- Biobanking should be prioritised in offset policy and planning. Risk factors should be incorporated into offsets calculations and methodologies. Policy should be prepared on the use of appropriate environmental securities in the native vegetation clearing context.
- The Native Vegetation Regulator should be established as an independent statutory agency to oversee to operation of the native vegetation management system, regulate offset schemes and arrangements (including markets), undertake monitoring, compliance and enforcement activity, provide expertise in assessment and advice in policy-making, undertake capacity building, and collaborate with other agencies such as local government and DEPI.
- Offsets regulation should, preferably, be incorporated into new legislation, such as a Native Vegetation Act, or amended legislation, such as the Flora and Fauna Guarantee Act. Alternatively, offsets regulation should be established in a stand-alone planning provision under the Victorian Planning Provisions.
- A system of public registers and public registration of key documents and information should be established and managed by the Native Vegetation Regulator.
- A monitoring, compliance and enforcement framework for native vegetation management should be developed at State level, with requirements for local government to formulate comparable frameworks for implementation at local level.
- A registration process of ecological assessors should be established, including a system of professional accreditation, requirements for minimum competency levels and scientific training, and ongoing professional development.
- A registration and accreditation framework for offset providers and offset brokers should be established.

# 1 Introduction

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In the history of European impact on Victorian landscapes, constraints on native vegetation clearing are a relatively recent phenomenon. The essential thread of this history until at least the 1970s was pursuit of a conscious policy of native vegetation clearance and removal, for agricultural purposes and subsequently also for urban development. The last 25 years of biodiversity policy has included an attempt to slow and reverse historic clearance and loss.

Native vegetation clearing in Victoria continues, although it is now regulated through the planning system. Several thousand permits allowing clearing are issued annually.<sup>1</sup> This process also occurs in the context of wider efforts at managing landscape change, such as voluntary schemes aimed at revegetation and conservation of biodiversity, Landcare, and the protection and integrated management of catchments, waterways and coasts.

Native vegetation offsets play a particular and important role in this management regime. Offsets are residual or compensatory actions intended to be undertaken once damage or destruction – in the case of native vegetation, clearing – has occurred. In relation to native vegetation management in Victoria, these actions presently include things like providing legal security for conservation of patches of native vegetation, managing invasive species, and past improvements such as removing stock.

The use of offsets as a mechanism for the management of native vegetation clearing in Victoria is commonplace. There are, however, problems and contradictions in the native vegetation offsets system. For example, loss of one area of native habitat through clearing or destruction cannot in fact be replaced. An area of native vegetation, or for that matter an individual old tree, is unique; it is, of course, a place, a particular world of biological diversity.<sup>2</sup> Any other conception of it – for example, a ‘patch’, a quantum of ‘habitat hectares’ or ‘credits’ – is, in the end, an abstraction imposed upon it for the achievement of social, policy, legal or economic purposes.

In many cases, the actor or entity (proponent) seeking to offset is generally indifferent to the place slated for clearing and offsetting. A proponent is ordinarily focused on the management of a particular problem, project and commercial outcome. Native vegetation management is merely part of a wider set of calculations and considerations.

Given this mind-set, there is much to be said for George Monbiot’s sardonic analogy of offsetting to religious ‘indulgences’ of centuries past,<sup>3</sup> which were payments to the Church to absolve people of their sins. Logically, offsetting arrangements can resemble schemes in which detrimental actions and conduct – read ‘sin’ on the one hand or the destruction of biodiversity on the other – can be accounted for (‘absolved’?) by some form of payment, exchange or purchase. Monbiot calls this logic a ‘pernicious and destructive nonsense’.<sup>4</sup>

Yet, on the other side of the equation, environmental change needs to be managed in the face of other pressures, such as commercial and economic concerns. It is arguable that offsetting serves as one expedient and necessarily pragmatic device for landscape management in this overall context.

This paper seeks to provide critical analysis of offsets arrangements as they apply to native vegetation clearing in Victoria, with a view to developing an improved policy framework. The paper does not presume there is no role for native vegetation offsetting. Rather, it is accepted that the mechanism of native vegetation offsets will continue to play an important role in managing biodiversity and achieving landscape change. Where our critique lies is in what role offsets should play and how they should be constructed and applied to these ends. As the Environment Defenders Office (Victoria) Ltd (‘EDO’) has previously argued,<sup>5</sup> the existing native vegetation management system in Victoria is not functioning as well as it ought to be. One of the essential tasks in redressing shortcomings and existing failings will be to overhaul the offsets system. That means revisiting policy settings, strengthening standards, and seriously tackling implementation problems, including compliance and enforcement. We intend that this paper contribute to that task.

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1 The volume of permits issued – mainly by local government – is not known precisely. Information obtained by the EDO shows that in 2010–11, 1968 permit applications to clear native vegetation were referred to the Department of Sustainability and Environment (DSE): see Environment Defenders Office *A framework for action? Implementation and enforcement of Victoria’s native vegetation clearing controls* (Monitoring Victoria’s Environmental Laws Report 4, 2012), although it is understood that these represents perhaps one-quarter to one-third of all permits to clear issued by local government.

2 See for example George Monbiot ‘The unsung world’, first published online in *The Guardian* 7 December 2012, at <http://www.monbiot.com/2012/12/08/the-unsung-world/> (viewed 25 February 2013).

3 George Monbiot ‘Selling indulgences’, first published in *The Guardian* 19 October 2006, at <http://www.monbiot.com/2006/10/19/selling-indulgences/> (viewed 25 February 2013).

4 Ibid.

5 Environment Defenders Office *A Framework for Action? Implementation and enforcement of Victoria’s native vegetation clearing controls* (Monitoring Report 4, 2012)

## 2 Biodiversity offsets

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Offsets ordinarily arise in biodiversity law and policy as an action subsequent to attempts at the avoidance and/or minimisation of ecological loss or destruction. They are intended to be a residual and compensatory mechanism, aimed at contributing to a 'net gain,' or at least some form of neutralising landscape impact, in the context of permitted loss and damage.

Offsetting mechanisms initially arose in the context of wetland drainage and loss in the United States and this is perhaps the 'most mature' offsets framework. Offsetting arrangements have been implemented, for example, in Brazilian forests, European habitat conservation, and Canadian fisheries.<sup>6</sup>

Arguably, the concept of biodiversity offsets has emerged as an expedient response to the impracticality of regulators and legislators countenancing, in the face of development or land-use change, an unambiguous refusal to permit ecological destruction. Or perhaps the motivation is merely an unwillingness to adopt a regulatory stance that contains little or no flexibility or room for negotiation. As we discuss below, a key question is, inevitably, where should the limits lie? Where should destruction/loss of the extent or quality of biodiversity be non-negotiable? When should the machinery of trade-off, which is essentially what biodiversity offsets establish, be invoked? We pose these questions in the context of important 'facts on the ground', most notably the fact that offsets as a biodiversity policy and management tool are well-entrenched, if not an inevitable part of the regulatory landscape. That said, there is considerable force to the argument that there is a vast gulf between the rhetoric and claims of the biodiversity offsets mechanism and realities delivered. Anecdotally, we receive a lot of feedback on the poor outcomes achieved under clearing and management arrangements that employ offsets. The logical difficulties (if not implausibility) of biodiversity offsets are noted in the introduction and dealt with further below. It is a particular indictment that so little empirical investigation has occurred into how offsetting arrangements have played out in reality in the landscape. We have taken the position that this mechanism is deeply flawed but it is nevertheless necessary to engage with it as a regulatory tool and frame it in as effective a manner as possible.

### 2.1 Biodiversity offsets and the Victorian Native Vegetation Management Framework

Much of this paper focuses on the function and operation of biodiversity offsets under native vegetation clearing rules in Victoria. Controls on the clearing of native vegetation are guided by the 2002 policy A Framework for Action: Native Vegetation Management in Victoria ('Framework'). Reforms to the native vegetation regulatory system are in the process of development,<sup>7</sup> which will have the effect of substantially weakening existing constraints on permitted clearing (for example, abolishing the need to consider avoiding or minimising native vegetation destruction, removing requirements for on-ground assessment) and expanding and liberalising the use of offsets.<sup>8</sup>

A few salient points should be mentioned about the regulatory framework arising out of the Framework:

- The primary objective of the policy framework is 'reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a net gain'.<sup>9</sup>
- The Framework policy is mainly operationalised through the planning system, both at the strategic planning stage<sup>10</sup> (for example, in amendment to planning schemes) and at the statutory planning stage<sup>11</sup> (that is, the requirement for permission to clear native vegetation).
- Offsets are part of the mitigation (avoidance, or '3-step') hierarchy, whereby a person seeking to destroy or remove native vegetation must first demonstrate they have avoided and/or minimised losses and destruction before permission to offset is granted.<sup>12</sup>

<sup>6</sup> See generally Bruce McKinney and Joseph Kiesecker 'Policy development for biodiversity offsets: a review of offset frameworks' (2010) 45 *Environmental Management* 165.

<sup>7</sup> DSE *Future directions for native vegetation in Victoria: review of Victoria's native vegetation permitted clearing regulations – Consultation Paper* (2012); see also Victorian Competition and Efficiency Commission *A Sustainable Future for Victoria: Getting environmental regulation right* (2009), 165-175.

<sup>8</sup> A brief overview of the changes is at <http://edovic.org.au/summary-native-vegetation-law-proposals> (viewed 5 March 2013).

<sup>9</sup> *Framework*, 14.

<sup>10</sup> Victorian Planning Provisions, cl 12.01.

<sup>11</sup> See especially Victorian Planning Provisions, cl 52.16, 52.17.

<sup>12</sup> *Framework*, 18-19; Victorian Planning Provisions, cl 52.17.

- Application of the Framework and interpretation of the regulatory system by the Victorian Civil and Administrative Tribunal ('the Tribunal') has sought to 'balance' the objectives of native vegetation clearing controls with other planning objectives, rather than view the clearing controls as a mandatory requirement.<sup>13</sup>
- Judicial interpretation of the Framework has also tended to limit its legal force and to influence how it operates within the planning system.<sup>14</sup>
- Rules regarding the operation of offsetting are contained in the Framework<sup>15</sup> and also in other (administrative) guidance.<sup>16</sup>
- Compliance monitoring and enforcement of permitted clearing is weak and seriously under-performing. The extent of illegal native vegetation clearing and/or destruction is not known but may be significant.
- Only very limited empirical information on the performance of the native vegetation regulatory system in Victoria exists to date. The tenor of that evidence, however, is that the system is failing to meet its objectives.

## 2.2 Access to offsetting under the Victorian Framework

The 'avoidance hierarchy' presumes that there will be circumstances in which clearing is inapplicable, that is, avoidable, and hence where access to the offsetting system is inappropriate. This question of a threshold of impermissible loss or destruction also finds expression at a general level in the precautionary approach to environmental management.<sup>17</sup>

In most cases, permits for clearing are issued. Native vegetation clearing is typically viewed as unavoidable, perhaps after adjustment, modification and/or minimisation of impacts. That fact gives rise to the precise construction of 'unavoidable' clearing and what factors comprise such a category. The concept of unavoidability charts the outer limits of where offsetting will be permitted. Those limits are liberally drawn.

- Unavoidability will be influenced by various factors:
- the conservation significance of the native vegetation at issue and the extent of an obligation to innovate on the part of the proponent;<sup>18</sup>
- the capacity for innovation of the part of the proponent;<sup>19</sup>
- the context of zoning and other planning controls operating in respect of the land on which the native vegetation is situated, such as zoning for urban or residential purposes;<sup>20</sup>
- complexity in the retention, preservation and protection of native vegetation;<sup>21</sup>
- the fact that avoidance and minimisation of loss of native vegetation may be considered concurrently rather than sequentially;<sup>22</sup>
- the context of existing and potential threats to the extent and quality of native vegetation;<sup>23</sup>
- the context of surrounding land uses.<sup>24</sup>

<sup>13</sup> See especially *Villawood v Greater Bendigo City Council* [2005] VCAT 2703.

<sup>14</sup> *Moran Logging Company v Yarra Ranges Shire Council (Directions re a question of law)* [2006] VCAT 1758.

<sup>15</sup> Framework, Appendices 4-5, 54-56.

<sup>16</sup> DSE Vegetation gain approach – technical basis for calculating gains through improved native vegetation management and revegetation (2006).

<sup>17</sup> See for example *Intergovernmental Agreement on the Environment* (1992), [3.5.1]:

- ... In the application of the precautionary principle, public and private decisions should be guided by:
  - i. careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
  - ii. an assessment of the risk-weighted consequences of various options.

<sup>18</sup> *Reeve v Hume CC* [2009] VCAT 65; DSE Practice Note: *Assessing applications involving native vegetation removal* (2006), 4.

<sup>19</sup> DSE Practice Note: *Assessing applications involving native vegetation removal* (2006), 4.

<sup>20</sup> *Villawood v Greater Bendigo City Council* [2005] VCAT 2703; *Road Constructions v Ballarat CC* [2004] VCAT 2630; DSE Practice Note: *Assessing applications involving native vegetation removal* (2006), 4.

<sup>21</sup> *Villawood v Greater Bendigo City Council* [2005] VCAT 2703.

<sup>22</sup> *Ibid.*

<sup>23</sup> DSE Practice Note: *Assessing applications involving native vegetation removal* (2006), 4.

<sup>24</sup> *Road Constructions v Ballarat CC* [2004] VCAT 2630.

Interpretation of the Framework as requiring flexibility and ‘balance’ within the planning system as a whole, and as requiring innovation and protection of native vegetation on the other hand, are important tensions playing out in the regulatory system. The former considerations (as expressed in the *Villawood* case) have however tended substantially to limit operation of the avoidance strategy, especially in urban and peri-urban areas. The innovation requirement (as expressed in the *Reeve* case) has had some effect where native vegetation of very high conservation significance has been at issue.

## 2. 2. 1 Calculating offsets

How is ‘compensation’ for unavoidable destruction to be measured? A key issue in the offsets system is how commensurability is determined between location-specific ecosystems, that is, discrete places in the landscape. Offsetting procedures under the Framework are based on a combination of qualitative rules regarding commensurability (for example, ‘like for like’ rules)<sup>25</sup> and assessment methods producing a quantitative measure, or ‘score’, accounting for the extent and quality of loss (habitat hectares). Multipliers apply to offsetting the removal of native vegetation of high or very high conservation significance, with a view to producing net gains or substantial net gains.<sup>26</sup> In other circumstances (low or moderate conservation significance), mere equivalence is required.

## 2. 2. 2 Let’s be pragmatic about this!

It has been argued that native vegetation controls need to be applied ‘pragmatically’,<sup>27</sup> that is, conceding to development and other land uses. Among the important dimensions of this ‘pragmatism’ are: deferred (‘secondary consent’) offset arrangements, strategic (regional or ‘precinct’) planning, and development of trading in rights to clear and protect native vegetation (offset markets).

### 2.2.2.1 We’ll worry about that later...

There is a stated preference for offsets to be generated on the same property on which clearing is permitted,<sup>28</sup> but this desire may be frustrated by practical considerations or the desires of the proponent. The issue of ‘secondary consents’ then comes into play.<sup>29</sup> Secondary consents refer to any further authorisation required to do something that has already been provided for under permit conditions.<sup>30</sup> It may require that an action, such as establishing an offset, is done to the ‘satisfaction’ of the Responsible Authority (for example, local council). In this case, a right to clear and obligation to offset is granted but subject to further approvals and satisfaction of the relevant authority. The right to clear native vegetation subject to the issuing of secondary consent has been argued as necessary to reduce ‘undue burden’<sup>31</sup> and contribute to flexible and ‘pragmatic’ implementation of clearing controls.<sup>32</sup>

### 2.2.2.2 Setting off to market

Markets for offsets (trading in the right to clear native vegetation and obligations to engage in conservation activities) were envisaged in the Framework.<sup>33</sup> In Victoria, habitat hectares are the main ‘currency’ used to measure the equivalence underlying the trade and a price is subsequently negotiated between buyer and seller.

Market mechanisms applied to offsetting are intended to produce a space of economic exchange among privatised interests – those interests being the rights and obligations attaching to native vegetation.

### 2.2.2.3 Playing in the offsets pool

To take a more strategic (rather than individual and piecemeal) approach to the organisation of offsets, native vegetation precinct planning was adopted in 2006, formally implemented in VPP, cl 52.16. The effective logic of the strategic

<sup>25</sup> Framework, Appendix 4.

<sup>26</sup> Ibid.

<sup>27</sup> The term in this context adverts to remarks in *Villawood v Greater Bendigo CC* [2005] VCAT 2703, [54].

<sup>28</sup> See Framework, 38: ‘Where mitigation for vegetation loss is required, the preference is for offset gains to be generated on the same property.’

<sup>29</sup> Ibid, 38:

However, there are situations where this [on-site offsetting] is not possible or preferred, for example where there is no suitable offset site on the property or where the proponent has no interest in native vegetation management. In these situations there is a need for the offsetting gains to be generated elsewhere by third parties and to be available for purchase. The Net Gain policy requires appropriate matching of losses and gains, and procedures to ensure that gains are appropriately secured and protected (table 6).

<sup>30</sup> See for example *Environment Victoria v West Wimmera SC* [2004] VCAT 2511, [62]; on the scope of secondary consents, see *Pisanelli v Yarra CC* [2004] VCAT 2033.

<sup>31</sup> *Villawood v Greater Bendigo CC* [2005] VCAT 2703, [85].

<sup>32</sup> Ibid, [54].

<sup>33</sup> Framework, 38-39.

approach is to 'pool' offsets with the view to creating 'offsets reserves' or the (economic and/or environmental) base for more coherent, viable and substantial protected conservation sites. That approach is distinct from 'the fragmented and ad hoc consideration of individual applications for permits and provision of offsets.'<sup>34</sup> It is a process that has more recently been incorporated on a substantial scale in the Melbourne Strategic Assessment, including the establishment (or proposed establishment) of large-scale grassland reserves.<sup>35</sup>

#### 2.2.2.4 Standards for scoring

Once clearing has been permitted, the question of offsetting comes into play. The benefit of cleared native vegetation will, by definition, be lost. If offsets are to provide some form of 'compensation' – some form of impact that might neutralise this loss, provide a substitute benefit or deliver an overall 'gain' to the landscape – how are we to codify or standardise the actions, or bundle of actions, comprising 'offsets'? Under existing policy,<sup>36</sup> the 'bundle of actions' accumulated into offsets are identified as 'gains', and quantitative measures may be attributed to those 'gains.' 'Gains' are therefore 'scored'. This occurs both in the calculated extent and quality of habitat (the habitat hectare measure) and the requirement that 'gains' conform to certain types of action. Four categories of 'gain' are recognised under the Victorian system.<sup>37</sup> The constituent 'gains' of offset measurement, then, are codified in terms of:

- gains for past management practices since 1989 ('prior improvement gains');
- gains from securing the ongoing management and protection of native vegetation ('security gains');
- gains from maintenance of current vegetation quality over time and avoiding decline in native vegetation quality ('maintenance gains');
- gains from improvement to the quality of native vegetation beyond maintenance gains ('improvement gains').

These 'gains' include weightings in relation to habitat hectare scoring (for example, past management practices may account for up to 10% of the score; security gains may account for up to 40%). These standards are in addition to rules outlined in Appendix 6 of the Framework, which include standards in relation to location, timing, and landscape function under the 'like-for-like' principle (which functions as a principle of commensurability).



*Image: Ploughshare revegetation project by Greenfleet Australia*

<sup>34</sup> *Native Vegetation Review (AC)* [2006] PPV 19, 121 [5.1.1].

<sup>35</sup> See DSE *Draft Biodiversity Conservation Strategy for Melbourne's Growth Areas* (2011); Department of Planning and Community Development *Developing Melbourne's Newest Suburbs: Program Report* (2009), 16.

<sup>36</sup> DSE *Vegetation Gain Approach: Technical basis for calculating gains through improved native vegetation management and revegetation* (2006).

<sup>37</sup> See *ibid*, 5.

### 3 Are offsets a scam? The critique of biodiversity offsetting

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Few empirical studies of the effectiveness or success of biodiversity offsets have been undertaken in Australia. A 2010 study of habitat offsets in Western Victoria<sup>38</sup> found that it is unlikely that offsets (for large scattered trees) would achieve a 'no net loss' (neutralising) effect and at best long-term decline could be minimised by certain offsetting strategies.<sup>39</sup> Given the rate of permitted clearing in Victoria,<sup>40</sup> it can be assumed that resort to offsetting to some degree is at least prolific, if not near universal. Lack of empirical evaluation of offsetting projects is therefore a major shortcoming of the native vegetation management system.

The longest historic exercise in the use of offsetting mechanisms operates in the context of wetland loss in the US, under the regulatory aegis of the Army Corp of Engineers and the US EPA.<sup>41</sup> In this context, offsetting (mitigation) is typically combined with practices of 'banking' or pooling compensatory units into mitigation projects, and there is a reasonable history of evaluating the effectiveness and outcomes of these schemes. In general, wetland mitigation is at best problematic<sup>42</sup> and on certain important (for example, functional) criteria, mitigation schemes do not meet neutralising (no net loss) or beneficial targets.<sup>43</sup> The very high rates of permitted clearing and offsetting in these circumstances raise questions as to the residual character of offsetting.

In principle as well as in practice, there is substantial academic opinion that offsetting is problematic, and either provides a neutralising effect only with strict rules and compliance<sup>44</sup> or is unlikely to achieve this effect at all.<sup>45</sup> Gibbons and Lindenmayer<sup>46</sup> argue that strict limits need to be placed on offsetting mechanisms if they are to provide a viable ecological outcome. Those limits include:

- clearing associated with offsetting should be limited only to simplified vegetation;
- the temporary loss of habitat between clearing and the maturation of an offset should not represent a significant risk to a species, population or ecosystem process;
- there should be the provision of gains of a sufficient magnitude to compensate satisfactorily for losses from clearing;
- offsets should be in place for at least the same duration as the impacts from clearing; and
- there needs to be adequate compliance with offset plans.

Other authors identify the importance of avoiding or limiting time lags between biodiversity loss and offset establishment and maturation, and demonstrating 'accrued biodiversity values' at offset sites before clearing can occur.<sup>47</sup> Time lags of this type are a major source of uncertainty in the viability and success of offsetting projects. Yet the gap between loss of native vegetation and the successful establishment or maintenance of an offset might be only one source of uncertainty. Uncertainty is a wider problem in offset strategies,<sup>48</sup> which may relate to natural events (for example, fire, drought or

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<sup>38</sup> Martine Maron, Peter Dunn, Clive McAlpine and Amando Apan 'Can offsets really compensate for habitat removal? The case of the endangered red-tailed black-cockatoo' (2010) 47 *Journal of Applied Ecology* 348

<sup>39</sup> The authors note (at p 354) that There are few evaluations of the effectiveness of habitat offset schemes in compensating for habitat loss. After 20 years of implementation of a habitat compensation policy in Canada, most projects still resulted in net losses of fish habitat productivity ... and there is strong debate over whether wetland banking in the United States has achieved its goal of 'no net loss' of wetlands .... In most cases, the effectiveness or otherwise of the offset action will not become evident until many years after the offset activity is completed and the regulatory obligation of the proponent has lapsed.

<sup>40</sup> See EDO A *Framework for Action? Implementation and enforcement of Victoria's native vegetation clearing controls* (Monitoring Report 4, 2012), 12-17. According to data used by the EDO, 81% of applications to clear native vegetation were granted (p 13).

<sup>41</sup> An international comparison of offsets policies, including as applicable to US wetlands, can be found in Bruce McKenney and Joseph Kiesecker 'Policy development for biodiversity offsets: a review of offsets frameworks' (2010) 45 *Environmental Management* 165.

<sup>42</sup> See for example Shelley Burgin "'Mitigation banks'" for wetland conservation: a major success or an unmitigated disaster?' (2010) 10 *Wetlands Ecology Management* 49.

<sup>43</sup> See for example Richard Ambrose, John Callaway and Steven Lee 'An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991-2002' (California State Water Resources Control Board, 2006); Committee on Mitigating Wetland Losses, Board on Environmental Studies and Toxicology, Water Science and Technology Board, National Research Council *Compensating for Wetland Losses Under the Clean Water Act* (National Academies Press, 2001); James Salzman and J B Rule "'No Net-Loss' – Instrument Choice in Wetlands Protection' (Duke Law School, Research Paper 1, 2005).

<sup>44</sup> See for example Sarah Bekessy, Brendan Wintle, David Lindenmayer, Michael McCarthy, Mark Colyvan, Mark Burgman and Hugh Possingham 'The biodiversity bank cannot be a lending bank' (2010) 3 *Conservation Letters* 151; Philip Gibbons and David Lindenmayer 'Offsets for land clearing: no net loss or the tail wagging the dog?' (2007) 8 *Ecological Management and Restoration* 1 26; Martine Maron, Richard J. Hobbs, Atte Moilanen, Jeffrey W. Matthews, Kimberly Christie, Toby A. Gardner, David A. Keith, David B. Lindenmayer, Clive A. McAlpine 'Faustian bargains? Restoration realities in the context of biodiversity offset policies' (2012) 155 *Biological Conservation* 141.

<sup>45</sup> For example, Susan Walker, Ann Brower, Theo Stephens and William Lee 'Why bartering biodiversity fails' (2009) 2 *Conservation Letters* 149.

<sup>46</sup> Gibbons and Lindenmayer 'Offsets for land clearing'.

<sup>47</sup> Bekessy, et al 'The biodiversity bank cannot be a lending bank'

<sup>48</sup> Atte Moilanen, Astrid van Teeffelen, Yakov Ben-Haim, and Simon Ferrier 'How Much Compensation is Enough? A Framework for Incorporating Uncertainty and Time Discounting When Calculating Offset Ratios for Impacted Habitat' (2009) 17 *Restoration Ecology* 4 470; see also Maron 'Faustian bargains? Restoration realities in the context of biodiversity offset policies', 145-146.

flood) or human contingencies (for example, poor site management, inadequate long-term monitoring).

Quantitative measures (metrics) used to identify and define the biodiversity values underpinning offsets are necessarily limited and not fully representative of biodiversity lost to clearing.<sup>49</sup> The habitat hectare method, for example, represents a relatively ‘coarse’ model of complex ecological properties and processes, intended to balance scientific and planning concerns.<sup>50</sup> For example, land protection and cultural values are not incorporated into calculations. Recent research on faunal recolonisation of degraded sites<sup>51</sup> also suggests the measurement of native vegetation alone is unrepresentative of a wider *ecological* value.

These criticisms are broadly based on the notion that any claim current offsetting arrangements are, in fact, mitigating threats to biodiversity ‘is simply an untenable claim’.<sup>52</sup> Quantitative modelling of offsetting options in the context of threatened grasslands<sup>53</sup> suggests that even a highly strategic and anticipatory approach to offsetting will struggle to achieve a neutralising approach to native vegetation clearing. It has been argued in other circumstances that with sufficiently high multipliers, and with satisfactory monitoring and compliance, a neutralising impact may be achieved.<sup>54</sup> As Bekessy et al have argued, the existing general approach should be overhauled ‘or it should not exist at all’.<sup>55</sup>



*Logging in Sylvia State Forest, Victoria, 13 September 2011. Image by Pengo.*

<sup>49</sup> See for example Maron ‘Faustian bargains? Restoration realities in the context of biodiversity offset policies’, 144-145. The question of non-fungibility and the inherent incommensurability of biodiversity at any specific site pose inevitable problems in the production of a common measure: See generally James Salzman and J B Rule ‘Currencies and commodification in environmental law’ (2000) 53 *Stanford Law Review* 3 607.

<sup>50</sup> On the debate over habitat hectare methods, see: David Parkes, Graeme Newell and David Cheal Assessing the quality of native vegetation: The ‘habitat hectares’ approach (2003) 4 *Ecological Restoration and Management* 1 S29; Michael A. McCarthy, Kirsten M. Parris, Rodney van der Ree, Mark J. McDonnell, Mark A. Burgman, Nicholas S. G. Williams, Natasha McLean, Michael J. Harper, Rachelle Meyer, Amy Hahs and Terry Coates The habitat hectares approach to vegetation assessment: An evaluation and suggestions for improvement (2004) 5 *Ecological Restoration and Management* 1 24; David Parkes, Graeme Newell and David Cheal The development and *raison d’être* of ‘habitat hectares’: A response to McCarthy et al. (2004) 5 *Ecological Restoration and Management* 1 28.

<sup>51</sup> Romane Cristescu, Jonathan Rhodes, Celine Frere and Peter Banks ‘Is restoring flora the same as restoring fauna? Lessons learned from koalas and mining rehabilitation’ (2013) *Journal of Applied Ecology*, published online, 12 February 2013, doi: 10.1111/1365-2664.12046 ; Romane Cristescu, Céline Frère, Peter Banks ‘A review of fauna in mine rehabilitation in Australia: Current state and future directions’ (2012) 149 *Biological Conservation* 60.

<sup>52</sup> Bekessy, et al ‘The biodiversity bank cannot be a lending bank’, 157.

<sup>53</sup> Ascelin Gordon, William Langford, James Todd, Matt White, Daniel Mullerworth, Sarah Bekessy ‘Assessing the impacts of biodiversity offset policies’ (2011) 26 *Environmental Modelling and Software* 1481.

<sup>54</sup> See Evan Pickett, Michelle Stockwell, Deborah Bower, James Garnham, Carla Pollard ‘Achieving no net loss in habitat offset of a threatened frog required high offset ratio and intensive monitoring’ (2013) 157 *Biological Conservation* 156.

<sup>55</sup> Bekessy, et al ‘The biodiversity bank cannot be a lending bank’, 157.

## 4 Toughening up offsets

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The policy framework proposed below responds to the existing situation and critique as outlined. The objective is to provide key principles and rules governing the offsetting system, particularly as applicable in native vegetation management but also with a view to relevance to biodiversity offsetting generally.

### 4.1 What is native vegetation offsetting trying to achieve?

#### 4.1.1 Neutralising or beneficial impact across the landscape

Offsetting is a symptom of a need for trade-offs and compromise between competing goals and interests in the native vegetation management system.<sup>56</sup> Those competing goals include biodiversity conservation, economic development, and broader social and public policy objectives including intergenerational justice, social amenity and public health.

The logical purpose of offsetting as a compensatory mechanism is to achieve a neutralising or beneficial outcome in the face of native vegetation clearing. The question of scale has not been considered expressly, although it is arguable that actions at both landscape scale and local scale are relevant.

The guiding purpose should be an overall neutralising or beneficial impact. This objective is generally expressed in the concept of a 'net gain' in the quality and quantity of native vegetation across the landscape.<sup>57</sup> The idea of a 'neutralising or beneficial impact' from offsetting processes is an attempt to give expression both to the quantitative dimension of offsets models and the intention that they should achieve an overall positive outcome (or at least not a negative outcome).

#### 4.1.2 Managing landscape change

Offset models also strive to achieve qualitative and strategic outcomes. Whether or not the accounting principles of a neutralising/beneficial impact are fulfilled, the consequence of biodiversity loss and habitat clearing in one place and its 'compensation' by actions elsewhere will (and is arguably intended to) affect landscape change. These changes may occur at a localised level, or at a bioregional or even cross-catchment level. The fact of landscape change arises from the loss of a unique patch of native vegetation and, similarly, the unique character of the purported remedial action, which will be founded on management, improvement and planning of natural systems elsewhere (whether contiguous with areas lost or otherwise).

In significant part, the implication of native vegetation offsets schemes is to provide for landscape change. That change will be a combination and balance of urbanising and/or industrialising landscapes, on the one hand, and managed natural (or perhaps 'quasi-natural'), biologically diverse landscapes, on the other hand. Where the balance is drawn will have a significant impact on the actual biological diversity of landscapes over the long term. How the balance is struck will additionally impact on long-term success. The balance needs to be struck in favour of strategic, connected and improving areas of habitat/native vegetation.

A further guiding purpose should remain adherence to the 'primary goal' of the Framework, namely landscape reversal of native vegetation decline leading to a 'net gain'.<sup>58</sup> To achieve this outcome, the 'pragmatics' of landscape change need to be recalibrated in favour of strategic protection, restoration and management of landscapes at local and catchment scale.

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### RECOMMENDATION

Offsets policy should state that the underlying objective of the offsets scheme is to achieve neutralising or beneficial landscape impacts in the context of any native vegetation loss. Offsets policy should state expressly that offsets are to contribute to the Primary Goal of the Native Vegetation Management Framework.

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<sup>56</sup> Angus Morrison-Saunders and Jenny Pope 'Conceptualising and managing trade-offs in sustainability assessment' (2013) 38 *Environmental Impact Assessment Review* 54; Maron et al 'Faustian bargains? Restoration realities in the context of biodiversity offset policies'.

<sup>57</sup> *Framework*, 14

<sup>58</sup> *Framework*, 14-15.

## 4.2 At what point is access to offsetting appropriate?

### 4.2.1 Protections from ‘high risk’ clearing

‘Risk-based’ classification in environmental management is flavour of the month. Little attention has been paid however to conceptualising ‘high risk’ habitat destruction and figuring out how it should be managed. We turn to this question first.

Two general principles should govern access to the offsetting stage of native vegetation regulation: there will be circumstances in which no clearing is appropriate or permissible, and there needs to be clearer and more stringent application of the avoidance rules, especially where significant conservation or other values are at issue (or to put this in contemporary language, where clearing is ‘high risk’ from the perspective of ecologically sustainable development<sup>59</sup>).

At one level, limits to clearing presently exist by way of protected areas and public lands management, notably in national parks and other public reserves. This is indeed one mechanism of managing native vegetation of high conservation significance and perhaps the preferred approach.<sup>60</sup> It is appropriate that areas of native vegetation meeting recognised criteria, such as the ‘comprehensive, adequate and representative’ criteria of the National Reserve System,<sup>61</sup> are protected by other arrangements, in particular public reservation or protection.

Control of clearing under the Framework and planning system effectively does not mandate prohibition in what might be termed environmentally ‘high risk’ cases. It has been stated that there is no ‘red light’ to clearing, but rather an ‘amber light of caution’.<sup>62</sup> By contrast, the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (‘EPBC Act’) may declare an ‘action’ to have clearly unacceptable environmental impacts,<sup>63</sup> and the Western Australian Environmental Protection Authority’s Environmental Offsets Policy<sup>64</sup> includes presumptions against the use of offsets where ‘critical environmental assets’ are likely to be significantly impacted. ‘Critical assets’ include public conservation reserves, native vegetation, biodiversity and wetlands with high ecological values, important landscape features and heritage areas.<sup>65</sup>

We should conceive of ‘high risk’ clearing as that which has impacts similar to those identified in the WA Policy, or where native vegetation of high or very high conservation significance, as conceived under the Framework, is affected.<sup>66</sup> ‘High risk’ therefore should be derived from the broad spectrum of relevant considerations, including habitat hectare scoring, land protection functions, landscape role, existing legal and/or planning status, and social and amenity considerations.

Three standards are evident in these approaches: first, the ‘summary’<sup>67</sup> treatment of clearing that is ‘clearly unacceptable’; the presumption against approval of ‘high risk’ actions; and the ‘amber light of caution’, allowing clearing in exceptional circumstances and applying exceptions. Where permitted clearing regulations are the source of control of ‘high risk’ clearing – rather than use of the conservation reserves or protected areas – then we think that a strong and effective presumption against loss or destruction of that habitat is the preferred approach.

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### RECOMMENDATION

The concept of ‘high risk’ native vegetation clearing should be developed that encompasses clearing native vegetation of high or very high conservation significance and/ or where native vegetation is or comprises part of a ‘critical environmental asset’.

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<sup>59</sup> On the content of ESD principles, see *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), s 3A.

<sup>60</sup> Compare the remarks of the Tribunal in *Reeve v Hume CC* [2009] VCAT 65, [86] (emphasis added):  
Within the framework of Clause 52.17 and the associated objectives of the NVMF, the presence of native vegetation with High and Very High conservation significance is a constraint on development that has to be recognised. Conventional subdivision that would result in a substantive loss of the highly significant native vegetation is not the answer. *The native vegetation requires recognition of its conservation significance and biodiversity values with appropriate management through use of reserves nominally in public ownership.*

<sup>61</sup> Criteria applicable to inclusion of areas into the System are that they are ‘comprehensive, adequate and representative’ of ecosystems and biological diversity: see Australia’s Strategy for a National Reserve System 2010-2030, <http://www.environment.gov.au/parks/publications/nrs/nrsstrat.html> (viewed 23 January 2013), 10-14.

<sup>62</sup> *Reeve v Hume CC* [2009] VCAT 65, [57]; more recently, *Sentosa Game Resort v Wellington SC* [2012] VCAT 1425.

<sup>63</sup> *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), s 74B; see also EPBC Act Offsets Policy (2012), p 13 Figure 1.

<sup>64</sup> WA EPA *Environmental Offsets: Position Statement 9* (2006), 14.

<sup>65</sup> *Ibid*, 14-17.

<sup>66</sup> *Framework*, pp 53-55, Appendices 3-4. There is an argument to be made for ‘high risk’ to be constructed more broadly than only including ‘very high conservation significance’ native vegetation. Gibbons and Lindenmayer’s thesis that only relatively simplified vegetation should be available to clearing and offsetting suggests that, at a minimum, a ‘high risk’ category should include ‘high conservation significance’ vegetation also: Gibbons and Lindenmayer ‘Offsets for land clearing’. Their approach might also be read imposing a summary prohibition on clearing native vegetation assessed as falling into those categories.

<sup>67</sup> *Secretary to the Department of Sustainability and Environment (Vic) v Minister for Sustainability, Environment, Water, Population and Communities (Cth)* [2013] FCA 1, [62].

## 4. 2. 2 A strong presumption against ‘high risk’ clearing

The ‘amber light of caution’ provides a less than adequate approach to limits on permitted clearing. Substantial numbers of permits to clear high and very high conservation significance vegetation are granted.<sup>68</sup> The complex ‘balancing act’ of policy objectives operating in the planning system can and does expand the scope of ‘unavoidable’ clearing and diminish the protective intent of the Framework. The current approach to clearing native vegetation of very high conservation significance combines prohibition with proviso. The effectiveness of these controls rests on the ‘exceptional circumstances’ proviso and arguably that proviso lacks precision.

A presumption against clearing in ‘high risk’ cases functions somewhat differently to the current approach in that there would be a prohibition on clearing unless the presumption is displaced and various obligations or requirements are to be met before this can happen. Arguably it operates rather more flexibly and rigorously. For example, not only should ‘exceptional circumstances’ apply but additionally it should be necessary to show clearly and unambiguously that ‘high risk’ native vegetation should not be placed under some form of ‘nominal public reserve’ or other form of equivalent conservation protection. Also, a strong presumption against clearing might also require the demonstration of a high degree of innovation to any proposal in order to achieve avoidance of loss or destruction.<sup>69</sup>

Permitted clearing (and therefore access to offsetting) should find its limits in ‘high risk’ cases, although those limits should not operate in a summary fashion. Implementation of a presumption against clearing in those cases is an appropriate basis of regulatory control. The presumption should be applied strictly and with regard to all relevant considerations. This complex of considerations however should, as a matter of priority, be considerations of ecological, land-management and social-cultural values attached to the patches of native vegetation. Other economic or social considerations will be relevant but should be accorded relatively lesser weight. This is not to say there will be no circumstances where clearing is impermissible. For example, certain exemptions may continue to apply. Yet the mere existence of a proposal of State significance ought not to provide a necessary exemption. That would be one potentially displacing factor among the array of considerations, which would generally be weighted in favour of protection and conservation of ‘high risk’ examples of native vegetation.

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### RECOMMENDATION

A strong and effective presumption against high-risk native vegetation clearing should be established in law and policy.

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## 4. 3 What standards should apply to offsetting proposals where clearing permitted?

### 4. 3. 1 ‘Gains’ to be based on ecological additionality

Offsets are plagued by the problem of the measurement of ecological equivalence between cleared and offset sites, by uncertainty over outcomes, and by risks associated with timing and delay. These problems are compounded by deficiencies in the standardised actions constituting ‘gains’ under the existing offsetting rules.<sup>70</sup> Two of the more problematic actions constituting offset ‘gains’ at present are ‘prior improvement’ gains and legal security gains. ‘Prior improvement gains’ refer to retrospective actions (back to 1989) to manage native vegetation.<sup>71</sup> Security gains refer to legally enforceable obligations to manage land for the ongoing protection and management of native vegetation, such as by transfer to public conservation reserves or inclusions of such duties on-title (for example, through conservation covenants or statutory agreement).<sup>72</sup> These measures are not, even ‘in principle’, compensatory from an ecological viewpoint. More correctly, they are preconditions to compensatory action.

Any calculation of offsets should, minimally, disregard ‘prior improvements’ and compel legal security. Concepts of

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<sup>68</sup> See EDO *A Framework for Action? Implementation and enforcement of Victoria’s native vegetation clearing controls* (Monitoring Report 4, 2012), 14-17.

<sup>69</sup> These are criteria derived from *Reeve v Hume CC* [2009] VCAT 65.

<sup>70</sup> See DSE *Vegetation gain approach – technical basis for calculating gains through improved native vegetation management and revegetation* (2006).

<sup>71</sup> *Ibid.*, 5.

<sup>72</sup> *Ibid.*, 5-6.

‘additionality’ are important in providing for genuine gains.<sup>73</sup> ‘Additionality’ refers to actions that an offset provider is obliged to do beyond ordinary legal obligations, such as a duty of care for the land (for example, control of invasive species and land protection under the *Catchment and Land Protection Act 1994* (Vic)<sup>74</sup>). These ‘additional’ obligations are acknowledged in the concept of ‘improvement gains’ under the present policy.<sup>75</sup> Given the neutralising or beneficial outcome is an ecological objective, calculable gain should be limited to maintenance and/or improvement in the extent and/or quality of native vegetation.

Binding time frames under which offset arrangements are to be secured should be extended from the present requirement for 10 years to not less than 20 years,<sup>76</sup> with scope for extension of obligations on offset providers where appropriate given the nature of the ecological community at issue and/or where scientific evidence indicates this is necessary.

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## RECOMMENDATION

Scoring for prior improvement gains should be abolished. Legally enforceable obligations to protect subject land (land that is the site of native vegetation offsets) for conservation purposes should be a precondition of any offsetting arrangement. Offsets should only be available and calculable in relation to ‘improvement gains’, or actions additional to obligations required under any duty of care or other legal requirement.

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### 4.3.2 The existing ‘like-for-like’ rules to be retained

The Framework includes so-called ‘like-for-like’ rules under which a ‘clear link’ between native vegetation lost and actions in mitigation is maintained.<sup>77</sup> This connection is stricter in relation to higher (high and very high) conservation significance patches than lower (medium and low) conservation significance areas.<sup>78</sup>

These rules establish a graduated approach, the rationale for which is that the type, qualities and landscape functions of native vegetation of higher conservation significance is less easily replaceable and that, even at the lower end of the spectrum, offsetting should be contained within bioregions in which clearing occurs. This regulatory underpinning to the offsets ‘market’ is intended to provide a basis of ecological rigour to the system of transactions between rights to clear and obligations to restore via offsetting. Effectively, this means that offsets markets generally are contained within bioregions or catchments.<sup>79</sup> The capacity under the existing rules to ‘trade up’ – to allow offsetting transactions outside the same bioregion where native vegetation of higher conservation significance is protected<sup>80</sup> – provides important flexibility and should also be retained. This flexibility allows, for instance, easier strategic investment into high conservation value reserves or ‘pools’.

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## RECOMMENDATION

The existing ‘like-for-like’ rules applying to offsets should be retained.

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<sup>73</sup> See for example Department of Sustainability, Environment, Water, Population and Communities *Environmental Protection and Biodiversity Conservation Act Environmental Offsets Policy* (2012), 22-23; see also Business and Biodiversity Offsets Program *Biodiversity Offsets Design Handbook* (2009), at [http://www.forest-trends.org/documents/files/doc\\_3101.pdf](http://www.forest-trends.org/documents/files/doc_3101.pdf) (viewed 5 February 2013), 30-31: ‘The concept of ‘ADDITIONALITY’ is a fundamental principle for biodiversity offsets. An offset should deliver conservation gains over and above planned or predicted conservation actions being taken by other parties (otherwise the offset is making no difference).’

<sup>74</sup> Section 20.

<sup>75</sup> DSE *Vegetation gain approach – technical basis for calculating gains through improved native vegetation management and revegetation* (2006), 10-26.

<sup>76</sup> A default 20-year time period of foreseeable ‘loss aversion’ applies under relevant guidance to the EPBC Act Environmental Offsets Policy: *How to use the offsets assessment assessments guide* (2012), 6.

<sup>77</sup> Framework, 23.

<sup>78</sup> Framework, Appendix 4, 54-55.

<sup>79</sup> *Ibid.*, 54.

<sup>80</sup> *Ibid.*

### 4.3.3 Measure of equivalence to be more sophisticated and sensitive

The present baseline standards applying to offsets are modelled against ecological vegetation class ('EVC') benchmarks<sup>81</sup> representing 'mature and apparently long-undisturbed'<sup>82</sup> ecological communities. These benchmarks provide bases of measurement and equivalence adapted in the habitat hectare scoring method. Equivalence, under these models, includes provision of 'like-for-like or better' exchanges between cleared vegetation and offsets.

The habitat hectare 'currency' should be revised to account for the full and relevant spectrum of values that may be associated with native vegetation patches. These can include landscape properties and processes, such as salinity mitigation, water quality maintenance, erosion control and landscape connectivity and resilience. Amenity, social, cultural, heritage and health factors will likely be significant also in many instances of vegetation removal. Ignorance of the landscape and socio-cultural context of removal and offsetting is common among ecological equivalence measures.<sup>83</sup> The issue is to develop composite 'metrics' sensitive to a wider concept of 'conservation significance' (for example, to incorporate land protection functions or landscape connectivity) and to a concept of 'social significance' of the native vegetation at issue. These additional factors should be adopted further to the 'like-for-like' or better habitat arrangements currently operating.

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#### RECOMMENDATION

Metrics ('habitat hectare') used in accounting for offset arrangements should be revised and account should be taken of landscape protection functions, landscape resilience, and relevant social, cultural or amenity functions of subject land (both land to be cleared and to be used for offsets).

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### 4.3.4 Account for uncertainty

The Framework and existing regulatory settings do not expressly account for uncertainties in offset schemes once they are initiated or required. Uncertainties can relate to data and knowledge about affected sites, long-term factors and influences, confidence in the success or viability of offset sites, and time delays in maturation of compensating ecosystems at offset sites.<sup>84</sup>

Uncertainty represents a major risk factor in offsetting schemes. Given the risk-based approach to environmental regulation, much more effective and targeted accounting for uncertainty in offset rules is appropriate and, indeed, overdue.

A strategic approach to uncertainty should be required in any given proposal to clear native vegetation. Strategy in this context may comprise quantitative or qualitative measures or a combination. Responses to uncertainty should include:

1. incorporation of risk factors into offset calculations and native vegetation accounting methodologies. This approach is a development of the use of ecological risk assessment.<sup>85</sup> Development of guidance on ecological risk as applied to native vegetation clearing and offsetting should include reference to thresholds of unacceptable risk. Quantitative risk factors may also be incorporated into multipliers applying to the scale and size of offset sites.
2. the use of 'biobanking', with a view to building greater resilience, integrity and 'depth' into offsets. 'Biobanking' generally is a practice of establishing, creating or protecting sites of biodiversity in anticipation of the loss or destruction of biodiversity elsewhere. In short, the ideal effect of this approach would be to implement pre-emptive

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<sup>81</sup> See generally Department of Environment and Primary Industries 'Ecological Vegetation Classes', <http://www.dse.vic.gov.au/conservation-and-environment/native-vegetation-groups-for-victoria/ecological-vegetation-classes-evc> (viewed 1 May 2013).

<sup>82</sup> DSE *Vegetation Quality Assessment Manual* (2004), 5-6.

<sup>83</sup> See Fabien Quetier and Sandra Lavorel 'Assessing ecological equivalence in biodiversity offset schemes: key issues and solutions' (2011) 144 *Biological Conservation* 2991, 2993-2994.

<sup>84</sup> For example, the assessment guide for the EPBC Act *Environmental Offsets Policy* includes a comprehensive framework for consideration and calculation of uncertainties in respect of 'time until ecological benefit' is achieved, 'risk of loss', 'confidence in results': see *How to use the offsets assessment assessments guide* (2012), 6-7, <http://www.environment.gov.au/epbc/publications/environmental-offsets-policy.html> (viewed 13 February 2013).

<sup>85</sup> Compare with Florida Department of State *Uniform Mitigation Assessment Method* FAC Rule 62-345.600; Quetier and Lavorel 'Assessing ecological equivalence in biodiversity offset schemes: key issues and solutions', 2995.

environmental restoration and repair (and adaption, as appropriate). This proactive approach would require maintenance and improvement gains across landscapes in anticipation of a certain level of unavoidable loss in the future.

The concept of 'biobanking' is given detailed form under the NSW Threatened Species Conservation Act 1995. Under those arrangements, the general standard required of offset proposals is the improvement or maintenance of biodiversity values.<sup>86</sup> The tenor of biobanking is that the ecological feasibility of offset arrangements should be demonstrated prior to loss or destruction occurring.<sup>87</sup> Arrangements for biobanking thus need to be especially cautious in respect of what Bekessy et al have referred to as the 'lending bank' approach,<sup>88</sup> where any benefits to be delivered by establishing offsets do not actually exist at the time native vegetation clearing takes place. In other words, this 'lending bank' approach exposes real risks and uncertainty that ecological and conservation outcomes will not be achieved and will be defeated by time lags between clearing and the efficacy of offsetting actions. The 'biodiversity savings bank', by contrast,

is one in which assets are banked for the future and trading is only possible once it can be demonstrated that assets have matured (reached ecological equivalence with whatever losses they are being traded against). The value of biodiversity assets (savings) should be demonstrated before they can be used to offset loss of biodiversity elsewhere.<sup>89</sup>

Biobanking can also be combined with hedging strategies, where offsets include preference for ecologically valuable sites combined with diversification of restoration at multiple sites.<sup>90</sup>

3. the use of environmental securities, such as assurance or performance bonds or other personal property securities, especially in higher risk cases. Certain statutory facilities for using these types of mechanisms exist presently in the context of statutory agreements made under the Planning and Environment Act.<sup>91</sup> Environmental securities can provide incentive/disincentive mechanisms for offset design, planning and delivery, as well as means for restoration or rehabilitation in instances of poor performance.

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## RECOMMENDATIONS

Biobanking should be prioritised in offset policy and planning. Risk factors should be incorporated into offsets calculations and methodologies. Policy should be prepared on the use of appropriate environmental securities in the native vegetation clearing context.

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## 4. 4 What governance and administrative reforms are required?

### 4. 4. 1 Institutional arrangements

Current institutional arrangements governing native vegetation offsets are obscure, confused and unsatisfactory. The Department of Environment and Primary Industries ('DEPI') is responsible for policy and overall regulation of the system. The Department also can have a role to play in implementation where, for instance, it or a relevant Minister is a responsible authority or where a Minister is required to approve clearing.<sup>92</sup> It also has a significant quasi-commercial role to play in operation of the offsets market through BushBroker. Local government has a major operational role in permitted

<sup>86</sup> See *Threatened Species Conservation Act 1995* (NSW), s 127A(2)(d); see also 127ZL as to the issuing of biobanking statements where a development will improve or maintain biodiversity values.

<sup>87</sup> See *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48, [248] and [202]-[255] generally, in which Preson CJ in the Land and Environment Court discusses principles and application of offsetting mechanisms, their role and purposes; see also His Honour Preston CJ's consideration of offsets in *Gerroa Environment Protection Society Inc v Minister for Planning and Cleary Bros (Bombo) Pty Ltd* [2008] NSWLEC 173, [100]-[134], in particular his adoption of the 'parameters' in which offsetting should be permitted from Gibbons and Lindenmayer 'Offsets for land clearing'.

<sup>88</sup> Bekessy, et al 'The biodiversity bank cannot be a lending bank'.

<sup>89</sup> *Ibid*, 153.

<sup>90</sup> Atte Moilanen, Astrid van Teeffelen, Yakov Ben-Haim, and Simon Ferrier 'How Much Compensation is Enough? A Framework for Incorporating Uncertainty and Time Discounting When Calculating Offset Ratios for Impacted Habitat' (2009) 17 *Restoration Ecology* 4 470.

<sup>91</sup> *Planning and Environment Act 1987*, s 175.

<sup>92</sup> As in the case of clearing native vegetation of very high conservation significance.

and controlling clearing and offsetting. Increasingly, local government also views itself as an actor within the offsets market. There is little transparency or rigour in these arrangements.

The main regulatory functions of permitted clearing and offsetting systems should be reformed and transferred to an independent regulator, along the lines of the Native Vegetation Regulator proposed by the Victorian Competition and Efficiency Commission ('VCEC').<sup>93</sup> The Regulator should be a statutory office, whose functions and powers are contained in legislation. As the VCEC proposal envisages, the Regulator would take over the operational functions presently exercised by State and Local Government entities, especially in terms of technical assessment, monitoring and compliance, administration, and additional functions noted below. While in general, policy direction should be retained by (and be the focus of) DEPI, the Regulator should also perform an expert advisory function in policy-making.<sup>94</sup> A continued close working relationship between the Regulator and local government would be necessary.

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## RECOMMENDATIONS

The Native Vegetation Regulator should be established as an independent statutory agency to oversee to operation of the native vegetation management system, regulate offset schemes and arrangements (including markets), undertake monitoring, compliance and enforcement activity, provide expertise in assessment and advice in policy-making, undertake capacity building, and collaborate with other agencies such as local government and DEPI.

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### 4. 4. 2 Offsetting rules and standards should have statutory form

At present in Victoria, offsetting rules and principles primarily exist in policy documents (for example, the Framework) and in non-binding Practice Notes and similar guidance. This is rather distinct from, for example, the situation as it operates in New South Wales under the 'biobanking' scheme, which operates under the *Threatened Species Conservation Act 1995* (NSW).<sup>95</sup> The legislated form of the scheme provides for greater transparency, clarity and certainty in its constituent and operative features. Regardless of whether an offsetting scheme is contained in primary legislation, it is a mechanism that should be established in statutory form. In Victoria, then, the scheme could be established under the *Flora and Fauna Guarantee Act 1988*, the equivalent to the NSW legislation, or alternatively a native vegetation offsetting scheme could be the subject-matter of the Victorian planning policy framework (by way of a 'particular provision' within the State framework). Establishment of an offsets scheme within the *Flora and Fauna Guarantee Act 1988* may help to revitalise that legislation.<sup>96</sup> Alternatively, a preferable position may be to include legislated offsets arrangements under a stand-alone native vegetation or biodiversity Act.

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## RECOMMENDATION

Offsets regulation should, preferably, be incorporated into new legislation, such as a Native Vegetation Act, or amended legislation, such as the Flora and Fauna Guarantee Act. Alternatively, offsets regulation should be established in a stand-alone planning provision under the Victorian Planning Provisions.

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<sup>93</sup> Victorian Competition and Efficiency Commission *A sustainable future for Victoria: getting environmental regulation right* (2009), xlvii-xlviii.

<sup>94</sup> Compare with the research, advisory and law reform tasks of the Australian Competition and Consumer Commission under *Competition and Consumer Act 2010* (Cth), s 28.

<sup>95</sup> Part 7A.

<sup>96</sup> See for example the critique of that Act in Environment Defenders Office Victoria *Where's the guarantee? Implementation and enforcement of the Flora and Fauna Guarantee Act 1988 & Wildlife Act 1975*, at <http://www.edovic.org.au/law-reform/major-reports/wheres-the-guarantee> (viewed 4 March 2013).

#### 4. 4. 3 Monitoring, compliance and enforcement

The offsets system is not functional without systemic and effective reporting, monitoring and compliance. It is highly arguable that this does not exist presently.<sup>97</sup> Structured, detailed and resourced compliance policy within Government does not presently exist<sup>98</sup> and it is unlikely that local government approaches are systematic, transparent and sufficiently resourced.<sup>99</sup> Participation in offsetting (permission to clear) should be allowed to proceed only on the basis of conscientious participation in reporting, monitoring and compliance, including consideration of the past record of proponents in this regard. This approach should be a headline policy of the native vegetation management system.<sup>100</sup>

In rural areas in particular, this sort of approach is likely to be facilitated substantially by clarity and consistency in interpretation and administration, and by competent, experienced and familiar ‘front-end’ support (for example, extension services and administrative programs).<sup>101</sup> Data on sentiments of agricultural landholders to native vegetation management suggest a cautiously sympathetic approach to retention and improvement,<sup>102</sup> and greater facility, clarity and transparency of purpose is likely to make the task of monitoring and compliance easier.<sup>103</sup>

#### 4. 4. 4 Reporting and registration

Transparency and rigour require reporting by a proponent, offset provider (if different person), offset scheme operator, and/or the responsible statutory agency. This should be facilitated by systems of public registration of relevant documents, instruments, actions and reports. Certain registration requirements already operate under the Planning and Environment Act, such as in relation to applications for permits and section 173 agreements. Much wider reporting and registration is needed and clear rules about publication and accessibility are also needed.

Material that should be publicly registered includes:

- permits to clear (including any conditions);
- assessment reports informing the issuing of permits;
- facilitating agreements (for example, conservation covenants, section 173 agreements);
- offset plans including monitoring reports and arrangements;
- information relating to offset providers including past performance;
- information relating to offset schemes providers (for example, brokers);
- information relating to environmental assessors;
- scientific reports;
- inspection, performance and audit reports (published annually or more frequently as required);
- compliance or enforcement notices however described; and
- enforcement actions.

<sup>97</sup> See generally Victorian Competition and Efficiency Commission *A sustainable future for Victoria: Getting environmental regulation right* (2009), 183-185.

<sup>98</sup> See Victorian Auditor-General *Effectiveness of compliance activities: Departments of Primary Industries and Sustainability and Environment* (2012).

<sup>99</sup> A selective survey of Victorian local governments indicates that very few Councils have specific complaints-handling and/or monitoring processes for environmental issues. Where such processes do exist, they are generally under-developed.

<sup>100</sup> See for example the Commonwealth requirement that offset schemes ‘have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced’: EPBC Act *Environmental Offsets Policy* (2012), Principle 8, 24.

<sup>101</sup> Keely Harris-Adams, Phil Townsend and Kenton Lawson *Native vegetation management on agricultural land* (ABARE Report 12.10, 2012), 22-24.

<sup>102</sup> *Ibid*, 14-18. The caution in this approach is influenced in particular by complexity, uncertainty in policy interpretation and administration and weaknesses in implementation: *ibid*, 13-14. See also Australian Institute of Criminology *Illegal native vegetation clearing* (Research and Public Policy Series, 109), <http://www.aic.gov.au/publications/current%20series/rpp/100-120/rpp109/09.html> (viewed 26 February 2013), which paints a somewhat less sympathetic approach, cautious or otherwise.

<sup>103</sup> See the conclusions in Harris-Adams, et al *Native vegetation management on agricultural land*, 26: Farmers are primary drivers of native vegetation management and manage a substantial proportion of Australia’s native vegetation estate. They deliver environmental and production benefits through native vegetation management and many intend doing more. If given sufficient information and incentives they could increase delivery of environmental benefits from farmland.

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## RECOMMENDATION

A system of public registers and public registration of key documents and information should be established and managed by the Native Vegetation Regulator.

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### 4. 4. 5 Monitoring, compliance and enforcement obligations on responsible authorities

Responsible authorities, in particular local government, have responsibility for the administration of the permitted native vegetation clearing system. This includes monitoring, compliance and enforcement of permits to clear, conditions and in many cases offset arrangements, notably those established under section 173 agreements. Leaving aside for the moment the question of potential conflicts of interest in local government operation of offset schemes,<sup>104</sup> there is a need for a clear, overarching monitoring and compliance framework required of local government. This framework would be part of broader monitoring and compliance arrangements and policy instituted under the native vegetation regulatory system and intended to operate in a coordinated manner with policy and practice under an independent regulator. The monitoring and compliance framework would, among other things, mandate that responsible authorities have:

- risk-based auditing plans, strategies, policy and procedures;
- a reporting framework and strategy;
- complaints handling procedures and a complaints handling strategy; and
- a prosecutions and enforcement policy.

The framework and subordinate measures functioning under responsible authority powers should have statutory force.

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## RECOMMENDATION

A monitoring, compliance and enforcement framework for native vegetation management should be developed at State level, with requirements for local government to formulate comparable frameworks for implementation at local level.

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### 4. 4. 6 Requirements for accreditation of ecological assessors

The proposals outlined above foresee an ongoing role for expert ecological assessment to provide the information underpinning permitted clearing and offset arrangements. Little formal regulation presently governs the provision of ecological assessment services. A level of formal qualification is required of individual assessors. No formal system of quality assurance, methodological rigour, or scientific independence is required of assessment services.

Principled requirements for registration and accreditation of ecological assessors and assessment services should be enacted under appropriate legislation, with more detailed operative provisions to be contained in subordinate legislation (for example, formal registration rules, competency requirements).

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<sup>104</sup> Moves by local government to establish and operate their own offsets schemes adds to the complexity for local government in monitoring, compliance and enforcement, as they may well be in a position of both the (local) regulator and a commercial or quasi-commercial actor in the operation of offset arrangements.

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## RECOMMENDATION

A registration process of ecological assessors should be established, including a system of professional accreditation, requirements for minimum competency levels and scientific training, and ongoing professional development.

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### 4. 4. 7 Requirements for accreditation and registration of offset providers and offset brokers

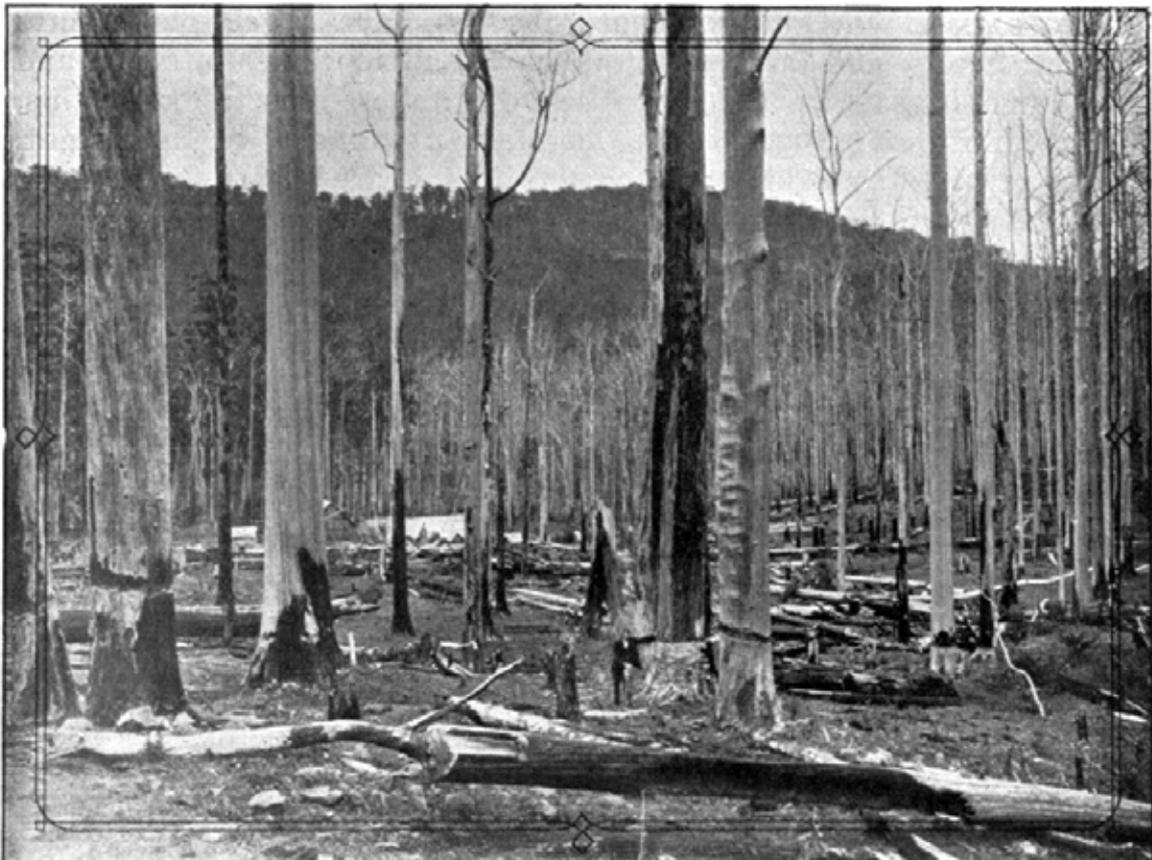
Little compulsory market transparency exists in offset brokerage schemes or in the provision of offsets. In some instances, such as where offsets are organised through Trust for Nature and therefore subject to the statutory scheme of the *Victorian Conservation Trust Act 1972*, a reasonably high level of statutory control, administrative transparency and technical support exists by virtue of the legislative purposes of the Trust and its long historical involvement in conservation. However, given the quasi-commercial impetus to offsetting schemes, as well as conservation purposes, it is reasonable to assume that offset providers and the operators of offset brokerages may have a mix of motivations and it is clearly imperative to ensure that the paramount consideration in the provision of offsets and supporting services is ecological conservation.

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## RECOMMENDATION

A registration and accreditation framework for offset providers and offset brokers should be established.

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## 5 Conclusions

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The management of native vegetation is an important and often controversial aspect of land management in Australia. Natural landscapes have been extensively modified in Australia since initial European occupation and the clearing of native vegetation has been a major factor in this process of modification. Policies encouraging clearing persisted until the 1960s. From the 1980s the tide had shifted toward approaches aimed at controlling land clearing and encouraging native vegetation conservation and landscape restoration.

Offsets should operate fundamentally as both a residual and compensatory device within the context of land clearing or degradation and as a longer-term means of repair and restoration of natural landscapes. Some loss of native vegetation is likely or unavoidable in the ordinary course of land use planning and management. Representative, strategic and endangered ecosystems should be protected in conservation reserves and, to this end, the application of native vegetation clearing controls and offsetting is properly only applicable to natural spaces outside those places.

Offsetting must be guided by clear goals and purposes: to serve conservation outcomes, to affect beneficial landscape change and to provide neutralising or beneficial impacts in the context of native vegetation (biodiversity) loss.

This paper has focused on three main themes in considering offsets policy.

First, at what point should clearing and hence offsetting be permitted? The response proposed is that there are circumstances where no clearing should be permitted (in which case those areas should be subject to reservation) and there are 'high risk' categories of clearing where a strong presumption against clearing should prevail. All relevant ecological and land management factors and considerations need to be taken into account and prioritised in making these decisions.

Second, where clearing is permitted, what standards and rules are to apply to the provision of offsets? The proposals here advocate for a stricter and more rigorous approach in line with achieving (or more likely to achieve) genuine ecological gains, or in other words genuine ecological contributions from offsetting processes to landscape restoration. Much of what is stated reiterates points and critique made by other authors.

Third, confidence in offsetting arrangements will not be achieved until there is an overhaul of regulatory machinery, including the establishment of an independent regulator; a statutory basis to offsetting systems; greater system transparency and more accessible sources of information; greater rigour and transparency in the competence and conduct of participants in the system; improvement to system performance; and responsive and effective monitoring, compliance and enforcement.

Given the extensive use of offset arrangements in the management of Victoria's native vegetation and our landscapes, a program of reform along these lines is needed as a matter of urgency.