

**Submission
No 29**

**INQUIRY INTO INTEGRITY OF THE NSW
BIODIVERSITY OFFSETS SCHEME**

Name: Dr Judy Lambert

Date Received: 29 August 2021

Submission to NSW Legislative Council Inquiry into the Integrity of the NSW Biodiversity Offsets Scheme

Dr Judy Lambert AM, BPharm, BSc(Hons), PhD, GradDipEnvManag, GradDipBusinessAdmin
, email: , Mob:

My submission is made as a retired environmental consultant who worked as a fulltime consultant to a former Federal Environment Minister at the time of the Rio Earth Summit and Australia's responses to it, then for several decades as a private consultant working at the interface between land uses for a diversity of commercial purposes, biodiversity conservation, and fire management. Although no longer engaged in regular paid work in this field, I continue as a volunteer committed to sound public policy and legislation with a particular focus on threatened species and biodiversity conservation.

Throughout this submission my focus is on concerns that the NSW Biodiversity Offsets Scheme has limited effectiveness in 'preventing the loss of biodiversity, including threatened species and habitat'. At a time when 'the loss of biodiversity poses an unacceptable risk to human and ecosystem health', as identified by the Inquiry's Chair¹, it is essential that any 'offset' scheme actually protects biodiversity and reverses losses of threatened species and ecological communities.

ADDRESSING THE TERMS OF REFERENCE

Effectiveness of the scheme to halt and reverse the loss of biodiversity values, including threatened species and threatened habitat in New South Wales

In NSW, as in other parts of Australia, biodiversity continues to decline, threatened species and ecological community lists continue to grow, and there are numerous examples of where the NSW Biodiversity Offsets scheme has failed to properly take account of these expanding losses.

The biodiversity conservation hierarchy

One of several major failings of the Biodiversity Offsets scheme (BOS) as it is operated in NSW is that too often, there is little if any evidence of real efforts to apply the biodiversity conservation hierarchy that is widely recognised within scientific literature as an essential underpinning to success.

As long ago as 2016, the International Union for the Conservation of Nature (IUCN) outlined a range of measures essential to the success of Biodiversity Offsets Schemes.

As with other scientific publications, the IUCN Issues Brief² relating to Biodiversity Offsets placed emphasis on the importance of the 'mitigation hierarchy'. The IUCN Brief opens by describing Biodiversity Offsets as "**measurable conservation outcomes designed to compensate for adverse and unavoidable impacts of projects**, in addition to prevention and mitigation measures already implemented". It describes the mitigation hierarchy as "a decision-making framework involving a sequence of steps, starting with the avoidance of impacts, followed by the minimization of inevitable impacts, on-site restoration and, finally, where feasible and necessary, biodiversity offsets"

¹ Faehrmann C (29 June 2021) Media Release: New parliamentary inquiry into the Biodiversity Offsets Scheme. NSW Legislative Council, Portfolio Committee No.7 – Planning and Environment.

² IUCN (Sept 2016). Issues Paper: Biodiversity Offsets. <https://iucn.org/issues-briefs>

Even within the Biodiversity Conservation Act and the 2017 Regulation (Clause 6.2.1) there is a requirement that the offset rules “apply... [only] after the steps to avoid or minimise those impacts” [on biodiversity values]. This is reinforced in the Department of Planning, Industry and Environment (DPIE) information sheet ‘About the Biodiversity Offsets Scheme’³, which states that “Under the BOS, applications for development or clearing approvals must set out how impacts on biodiversity will be avoided or minimised. [Only then] The remaining residual impacts can be offset by the purchase and/or retirement of biodiversity credits or payment to the Biodiversity Conservation Fund”.

Too often one reads Biodiversity Development Assessment Reports (BDARs) for which a major project proposal has dismissed, in very little space, alternative proposals that might result in much-reduced impacts on threatened species or ecological communities. One recent example is the multi-volume EIS for the proposed BeachesLink Tunnel in northern Sydney.

Other key underpinnings to a successful Biodiversity offsets program

In addressing biodiversity offsets, IUCN describes them as “conservation actions intended to compensate for the residual, unavoidable impact on biodiversity caused by projects, to ensure at least **no net loss** of biodiversity and, **where possible, a net gain**”². While the baseline against which these gains are measured remains the subject of some debate in scientific circles, a number of baseline principles needed to achieve the desired biodiversity outcomes are almost universally agreed. These are analysed in some detail in a paper from Fauna & Flora International (Hawdon, Parham & March, 2015)⁴, which provides a summary analysis of offset schemes in Australia, and are again summarised by EDO Australia⁵.

The following Table of the key principles for a successful Biodiversity Offsets scheme as summarised by the EDO is used as a starting point for considering the NSW Offsets Scheme.

Offsetting principle	Commitment in practice in NSW
Biodiversity offsets must only be used as a last resort , after consideration of alternatives to avoid, minimise or mitigate impacts	Mentioned in legislation, but often overtaken by: (i) a rapid shift to ‘offsetting assessment’, with minimal information on avoidance, minimisation or mitigation of impacts; or (ii) payments made in lieu of offsets
Offsets must be based on sound ecological principles, such as ‘ like for like ’	Provision of an option of payment in lieu of offsets circumvents this principle and in many instances ‘like’ is simply not available.
Indirect offsets must be strictly limited	There appears to be an overwhelming preference by business to make a payment in lieu, rather than committing to offset. Hawdon et al ⁴ found only 10 choices of offsetting in NSW over eight years
Offsetting must achieve benefits in perpetuity	Numerous examples in NSW demonstrate failures for a variety of reasons

³ NSW Department of Planning, Industry and Environment. About the Biodiversity Offsets Scheme. (<https://www.dpie.nsw.gov.au>)

⁴ Hawdon A, Parham E & March D (2015). Biodiversity offset schemes Country offset summary: Australia. Business & Biodiversity Program, Fauna & Flora International; www.fauna-flora.org/initiatives/business-biodiversity-resources/

⁵ EDO Australia (21 Feb 2020). Submission on draft Northern Territory Offsets Policy. www.edo.org.au/publications/nt-offsets-policy

Offsetting principle	Commitment in practice in NSW
Offsets must be based on principles of ‘ net gain ’	The focus in NSW has been on ‘no net loss’ rather than ‘net gain’, and there are several ecological reasons why even a ‘no net gain’ is not achieved
Offsets must be ‘ additional ’	‘Additionality’ requires that the conservation outcomes delivered by an offset are demonstrably new and additional to what would have occurred without the offset. Poor provision for monitoring, lack of clarity about the timeline for outcome assessment, and the benchmarks against which outcomes are assessed all enable failures in this regard.
Offsets arrangements must be legally enforceable	‘In perpetuity’ legal instruments are necessary to enable this. However, these are often lacking, and agreements can be reversed at the Minister’s discretion.

Elaborating further on several of the above

‘Like for Like’

The ecological principle of using a biodiversity offset to conserve a species or ecological community at risk of extinction (i.e. a threatened species or community), by investing in the conservation management of another area is only of real value in conserving the target species or community, where the ‘offset’ is applied to another example of the at risk species or community.

It has long been recognised that the most effective and efficient way to conserve species and ecological communities is to retain them in their natural condition. To restore communities to their natural condition is a complex and challenging task and in many cases there is limited evidence that this can be fully achieved.

Where, as an absolute last resort (after avoiding, minimising or even mitigating development impacts) offsetting is to be used, it must be used to ensure that the environmental areas being used for the offset are equivalent in several ways, with the areas being impacted/lost to development.

Many scientists have written on the challenges of ‘like for like’ offsetting. Maron et al. (2012)⁶ point out the undue “faith [placed] in the ability of restoration to recover lost biodiversity”. They go on to highlight the likely increase in damage permitted to biodiversity through an offset which fails to restore the lost community.

Furthermore, the timing of offsetting is important. As Hawdon et al. (2015)⁴ identify “Where approved offsets are not made a requirement before development begins, the impacts may occur without offsetting ever being undertaken”... “and [they] are preferably in place, prior to approving development permits or allowing impacts to commence”. The Maules Creek mine case (referred to below) is a prominent example of this problem.

⁶ Maron M, Hobbs R J, Moilanen A et al, (2012), Faustian bargains? Restoration realities in the context of biodiversity offset policies. *Biological Conservation* 155, pp141-148.

Indirect offsets

Another fundamental principle of biodiversity offsetting, as identified by Hawdon et al.⁴ and by the EDO⁵, is that 'indirect offsets' through which project proponents contribute to a fund (in NSW managed by the Biodiversity Conservation Trust and accountable to the Minister) to be used for other conservation initiatives bring with them a significant propensity for the proponent to pay the necessary fees rather than undertaking offsetting actions themselves. In doing so, the proponent "passes that liability to the government to deliver the offset, extending the time lag for real offsetting and leaving government holding the environmental and financial risk" (Hawdon et al. 2015⁴).

Biodiversity benefits in perpetuity

The NSW Biodiversity Conservation Act (s.5.23) makes provision for Conservation Agreements that are for periods other than 'in perpetuity', the Minister has powers within the Act to terminate or vary a Conservation Agreement, and there are powers within the Act to make exceptions for mining and other reasons – all of which erode the commitment to conservation 'in perpetuity'. We have seen various examples of an area set aside as a biodiversity offset, subsequently having a major development approved which will destroy that offset value. The Moorebank Transport Intermodal impacts on designated koala habitat, and the M9 freeway planned to cut through a significant portion of the Wianamatta Nature Reserve near Penrith, are examples of this failure to protect in perpetuity offset areas.

To this must be added serious questions about adequate resourcing of management, monitoring, and reporting to assess the extent to which offsets are of declining value over time, due to fragmentation, weed invasion, inappropriate fire management or other pressures that erode the site's biodiversity value. As Auld & Tozer (2004)⁷ highlight, "continued loss and fragmentation of habitat of listed EECs... continues to undermine on-site threat mitigation and habitat restoration activities. In a scenario of continued habitat loss, the long-term viability of remnants remains in doubt ...".

These concerns contribute to the numerous 'uplistings' of Endangered Ecological Communities (EECs) to Critically Endangered Ecological Communities (CEECs). The number of CEECs is clearly growing, as reflected by comparisons from one NSW State of the Environment report to the next.

'Net gain' requirements

Whereas the widely accepted principle of requiring a 'net gain' in the affected species or ecological community when considering offsetting creates the possibility of a positive impact on the affected species or ecological community, NSW requires the lesser benchmark of 'no net loss'.

Maron and her colleagues (2015)⁸ draw attention to a now widely recognised problem of the use of inappropriate baselines in the determination of offset requirements. They conclude that "The near ubiquitous use of declining baselines risks 'locking in' biodiversity decline across impact and offset sites, with implications for biodiversity conservation more widely".

⁷ Auld D & Tozer M (2004). Endangered ecological communities and landscape conservation in NSW: successes and failures in the Sydney Basin. In: Hutchings P, Lunney D & Dickman C. *Threatened Species Legislation: Is it just an Act?* Royal Zoological Society of NSW, Mosman.

⁸ Maron M, Bull JW, Evans MC & Gordon A (2015). Locking in loss: baselines of decline in Australian biodiversity. *Biol. Conservation* 192, pp.504-512.

Hawdon et al. (2015)⁴ draw attention to the importance of ‘maintaining or improving’ both the quality and numbers or area of a threatened species or ecological community. Gibbons et al. (2017)⁹ highlight the importance of “integrating sound data collection and reporting with the implementation of policy”. While they acknowledge reasonably sound quantitative data collection, they highlight the lack of data in NSW on “the extent to which conditions imposed upon developers were undertaken on the ground”, thus limiting assessment of predicted versus actual outcomes. These authors also reaffirm “warnings by Maron et al. (2015)⁸, Gordon et al. (2015) and Gibbons et al. (2016) that biodiversity gains procured from averted loss offsetting can easily be overstated”.

‘Additionality’

As stated in the Table above, ‘Additionality’ requires that the conservation outcomes delivered by an offset are demonstrably new and additional to what would have occurred without the offset. While this principle is addressed in relevant legislation, examples can be identified in NSW where the ‘offsets’ are claimed in areas already substantially protected in conservation reserves or other areas already substantially protected or funded under existing legislation or obligations. Offsetting of Critically Endangered Cumberland Plains Woodland to be removed for the Western Sydney airport is one particular example.

Legal enforceability

The extent of Ministerial discretion provided by several sections of the NSW Biodiversity Conservation Act means that an existing Conservation Agreement can fairly readily be overturned, leaving unprotected a significant area set aside and managed for conservation of a threatened species or ecological community.

To this must be added concerns about the extent to which local governments or other authorities upon which monitoring and compliance often fall, are generally not resourced to carry out these requirements, and changes in State agency personnel and responsibilities may result in inadequate compliance monitoring.

In the absence of sound and ongoing monitoring, enforcement is impossible and if breaches are not enforced, the whole biodiversity conservation process is undermined.

The role of the Biodiversity Conservation Trust in administering the scheme and whether the Trust is subject to adequate transparency and oversight

Annual reporting by the Biodiversity Conservation Trust¹⁰ seems to indicate that it is generally well governed, committed to its conservation objectives and making progress from year to year. One weakness in the offset processes is inadequacy of monitoring and reporting on the extent to which conditions placed on developers are actually implemented (see, for instance the Maules Creek case¹⁰).

The relatively large number of Offsets and the numbers of payments made by developers to the Biodiversity Conservation Fund¹¹ (thus shifting their offset obligation back to government) are of concern. In addition to the issues discussed above, these transfers delay biodiversity conservation

⁹ Gibbons P, Macintosh A, Constable AL & Hayashi K (2017) Outcomes from 10 years of biodiversity offsetting. *Global Change Biology*, 2017;00:pp. 1-12. <https://doi.org/10.1111/gcb.13977>

¹⁰ EDONSW (1 May 2021). Community discontinues Maules Creek Mine offsets case after Minister’s decision. <https://www.edo.org.au/2021/05/01/community-discontinues-maules-creek-mine-offsets- case-after-ministers-decision/>

¹¹ NSW Biodiversity Conservation Trust Annual Report 2019-20. www.bct.nsw.gov.au

outcomes, thus exacerbating inter-generational inequities (Auld & Tozer, 2004⁷; Gibbons et al. 2017)⁹.

To this must be added concerns about inadequate pricing to support the ongoing monitoring and evaluation required to demonstrate that the offsets are actually delivering increases in numbers, area and condition of the offset areas. There appear minimal grounds for concerns reported to have been expressed by the Deputy Premier¹¹ that the offsetting process places an undue burden on the developer.

Perhaps of greatest concern are media reports that 'government consultants were buying land and selling it as offsets back to the state'¹¹. Whether the responsibility of the Biodiversity Conservation Trust, or of government (given the Trust is accountable to the Minister), these concerns require further control and transparency.

The use of offsets by the NSW Government for major projects and strategic approvals

Media reports that the NSW Premier views biodiversity offsets as "the greatest hand-brake to infrastructure investment in the state"¹² are deeply concerning and should not be considered a driver to this Inquiry, because there is ample evidence to the contrary.

Too often, these offsets are used as a tool to enable developers of major infrastructure projects and other projects which will clearly impact adversely on threatened species and ecological communities to simply pay their way out of having proper regard for the need to conserve these already seriously at risk aspects of our biodiversity. With more than 1000 species and more than 100 ecological communities listed as threatened in NSW, the majority of them 'endangered' or 'critically endangered', NSW needs a scheme that protects these species and communities, rather than simply trading them away.

Numerous examples come to mind of biodiversity protection being pushed aside and failing to meet the fundamental requirements for successful offsetting as major developments proceed. Typical examples include:

- The large open-cut mine proposal which impacts on Warkworth Sands Woodlands in the Hunter Valley
- The Maules Creek coal mine case and failure to 'offset' Box Gum Grassy Woodlands
- The Moorebank Transport Intermodal which destroyed some 40 hectares of koala habitat, and the subsequent realignment of a major road so that it goes through land previously set aside as an 'offset'
- The M9 freeway, planned to cut through a significant portion of the Wianamatta Nature Reserve near Penrith, which had previously been conserved as an 'offset' for the M7 corridor
- Proposals to 'offset' clearing of threatened species and an Endangered Ecological Community (EEC), the Duffy Forest EEC, for the proposed BeachesLink Tunnel connections, without any clear capacity to offset these impacts by conserving other areas of the EEC.

The impact of non-additional offsetting practices on biodiversity outcomes, offset prices and the opportunities for private landowners to engage in the scheme

Opportunities for private landholders to engage in offsetting schemes seem reasonable, except where land identified for likely future development is bought up by those with early information, then returned to government through an offset process (as in the case of major projects such as

¹² Sydney Morning Herald (7-8 Aug 2021, p.12). NSW to review biodiversity offset scheme.

freeway, airport or other public infrastructure development). This situation artificially increases offsetting costs, benefiting private individuals at public expense.

The other issues with non-additional offsetting practices are addressed in earlier sections of this submission and are well recognised by numerous conservation scientists, including several cited in this submission.

Any other related matters

As climate change-related catastrophic bushfire, more frequent and intense storms, and more severe flooding take hold across NSW and Australia more generally, the risks to our rich and biodiverse natural environment are growing.

Many of the issues addressed in this submission will become increasingly urgent as these pressures take an additional toll on our biodiversity, on which so much else depends.

CONCLUSIONS

Already, significant deficiencies in the NSW Biodiversity Offsetting Scheme are readily identifiable. Urgent changes to improve biodiversity protection are essential, with the need for a scheme that adopts and ensures implementation of all of the science-based principles addressed in this submission.

In addition, both Endangered and Critically Endangered species and ecological communities should be ineligible for 'offsetting' considerations and should instead be 'No Go' areas where offsetting is not an applicable strategy and loss of biodiversity must be avoided.