Submission on the Draft NSW Biodiversity Offsets Policy for Major Projects

prepared by

EDO NSW
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Successful environmental outcomes using the law. With over 25 years' experience in environmental law, EDO NSW has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO NSW is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

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EDO NSW is part of a national network of centres that help to protect the environment through law in their states.

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Introduction

EDO NSW has provided extensive legal advice on environmental offsetting at the state and national levels, in relation to broad policy reforms and also in relation to how offsetting works for individual projects in NSW. We welcome the opportunity to comment on the Draft NSW Biodiversity Offsets Policy for Major Projects (**Draft Policy**).

Offsetting is an attractive option for project proponents as a means for developments to obtain approval despite their environmental impact. How offsetting is done is highly variable across Australia. Often offsets are negotiated on a case by case basis between the regulator and the development proponent. Some jurisdictions apply policy guidelines, assessment methodologies, or more simplified offset ratios. Although there are certainly emerging trends and themes in offsetting, at present it is done on a relatively ad hoc basis with little strategic direction or guarantee of ecological outcome. In this context, we support the development of a consistent and transparent legal standard and methodology.

While certain types of environmental offset schemes do have some quantifiable benefits – such in the Hunter River Salinity Trading Scheme in NSW – other types of environmental offsets are far from proven. Many EDO NSW clients, and relevant significant scientific literature, note serious concerns as to whether biodiversity offsetting is actually possible given the unique nature of local biodiversity. Furthermore, where offsets are used, outcomes are difficult to measure.

This submission identifies the fundamental principles that need to be applied to any offset scheme. We outline the core principles and note that proposed reforms in NSW do not address all the necessary fundamental principles. This is a serious concern given the imminent accreditation of state standards for environmental assessment and approval under the Australian Government's 'one stop shop' policy. There are currently significant differences between the Australian Government Offset Policy and those proposed in NSW.

We note that the Productivity Commission recently recommended that, "A dedicated and independent review of offset arrangements is warranted to examine: offset policy objectives, the quantitative methodologies used to identify suitable offsets, the merits of offset markets and the case for establishing a single, national offsets framework. The Commission is recommending that COAG commission a national and public review of offsets, to report by the end of 2014".[1] EDO NSW supports an independent review for the purpose of a single national offsets framework that implements best practice.

Our <u>key recommendation</u> is therefore that the NSW Draft Policy and Draft Framework for Biodiversity Assessment (FBA) be finalised once a comprehensive and independent review into offsets has been undertaken, and a rigorous national standard for offsetting is developed. The national standard must be based on robust and objective science and apply the fundamental principles as outlined in this submission. Once a best practice national standard has been developed through expert and public consultation, state standards and relevant legislation should be amended to meet the national standard. Accreditation of state standards must not occur until this precondition is met.

This submission addresses:

[1] Productivity Commission 2013, *Major Project Development Assessment Processes*, Research Report, Canberra, at page 213, available at: http://www.pc.gov.au/__data/assets/pdf_file/0015/130353/major-projects.pdf

1. Key principles for the use of offsets
2. Draft NSW Biodiversity Offsets Policy for Major Projects
    a. Transitional implementation
    b. Definitions
    c. Objectives
    d. Scope and application
    e. Policy principles
    f. Aquatic biodiversity
    g. Biodiversity assessment - Draft Framework for Biodiversity Assessment
    h. Fulfilling offset requirements
        i. Biodiversity Offset strategy
        ii. Biobanking agreements
        iii. Rehabilitation of mine sites
        iv. Supplementary measures
        v. Matters for further consideration
        vi. Discounting
3. NSW Biodiversity Offsets Fund for Major Projects

1. Key principles for the use of offsets

There are a number of fundamental principles that must underpin any ecologically sound offset scheme. These principles must be enshrined in assessment methodology tools and in relevant legislation. As proposed, the NSW Draft Policy does not incorporate all of these fundamental principles. This is discussed further in Part 2 of this submission. The key principles are:

Biodiversity offsets must only be used as a last resort, after consideration of alternatives to avoid, minimise or mitigate impacts.

The mitigation hierarchy should be clearly set out in relevant planning legislation as a mandatory pre-condition before any offsetting option is considered. Appropriate guidance and emphasis should be provided to proponents on how they can demonstrate their endeavours to genuinely 'avoid' and 'mitigate' aspects of the proposed development.

Offsets must be based on sound ecological studies and principles, such as 'like for like.'

Any ecologically credible offset scheme must enshrine the requirement of like-for-like offsets, to ensure that the environmental values of the site being used as an offset are equivalent to the environmental values impacted by the proposed action. Otherwise the resulting action is not an offset. A like for like requirement is absolutely fundamental to the ecological integrity and credibility of any offset scheme.

Concerted policy action and long-term strategic planning to contextualise offsetting within a broader strategy of environmental conservation, must be based on sound landscape conservation principles, without eroding the like for like principle.

Legislation and policy should set clear limits on the use of offsets.

Offset schemes must have clear parameters. The use of 'red flag' or 'no go' areas is essential to make it clear that there are certain matters in relation to which offsetting cannot be an appropriate strategy. This is particularly relevant to critical habitat and threatened species or communities that can withstand no further loss. (This principle must not be undermined by relaxing the 'like for like' rule).

Indirect offsets must be strictly limited.

There should be extremely minimal use of indirect offsets under any offset scheme. This is due to significant uncertainty of linkages with impacts, and higher risk that biodiversity outcomes may not be achieved. Allowing expanded use of indirect offsets would result in net loss of impacted biodiversity.

Offsetting must achieve benefits in perpetuity.

An offset area must be legally protected and managed in perpetuity, as the impact of the development is permanent. Offset areas should not be amenable to being offset again in the future.

Offsets must be based on principles of "net gain"

Relevant legislation must require any offset scheme to maintain or improve environmental outcomes, instead of simply requiring 'no net loss'. This acknowledges current trajectories of biodiversity loss, and that positive action is required to halt and reverse this trend.

Offsets must be additional

Any offset action must be additional to what is already required by law. The requirement of 'additionality' must be based on clear criteria to ensure that offsets are not approved unless they provide a conservation benefit additional to what would otherwise occur.

Offset arrangements must be legally enforceable.

Any offset scheme must be underpinned by strong enforcement and compliance mechanisms in legislation, with adequate resourcing, established from the outset.

2. Draft NSW Biodiversity Offsets Policy for Major Projects (Draft Policy)

This submission responds to the headings in the Draft Policy.

a. Transitional implementation

We note that the policy is intended to have an 18 month transitional period of 'administrative' implementation, with feedback from proponents on policy amendments. There needs to be clarity about the legal status of the policy – whether requirements are voluntary during this time. There should be broader consultation on the final legislation.

b. Definitions

We note the policy defines "supplementary measures" as "other measures that are likely to lead to improvements in biodiversity that do not necessarily need to meet all the principles for offsets" (p5). Supplementary measures are therefore not offsets. However, the policy allows for a proponent to satisfy 100% of their offset requirement with supplementary measures rather than direct offsets. EDO NSW has serious concerns about the use of indirect and supplementary measures – these are discussed further below.

c. Objectives (p5)

The Draft Policy has three key objectives:

1. to provide clear, efficient and certain guidance for stakeholders
2. to improve outcomes for the environment and communities
3. to provide a practical and achievable offset scheme for proponents.

EDO NSW supports improved guidance and clarity for stakeholders (objective 1). We obviously support improved outcomes, although we do not see how this policy guarantees environmental outcomes (objective 2).

We have serious concerns about objective 3, and submit that this objective has the potential to undermine the ecological integrity of offsetting in NSW. The emphasis on "increasing flexibility for achieving offset requirements" (p7) by providing alternative options where direct offsets are not available will result in a net loss of biodiversity impacted by major projects. Our concerns about:

- supplementary measures,
- mine site rehabilitation,
- broadening the like for like principle, and
- discounting

are set out below.

d. Scope and application (p7)

We note that the policy is not intended to cover marine species and wandering sea birds. If the intention is for the NSW policy to be federally accredited, these would need to be incorporated.

e. Policy principles (p8)

The policy is based on seven principles. The proposed principles incorporate some elements of the key principles outlined at the start of this submission, but clearly do not incorporate all the necessary fundamental principles. Our concerns in relation to the proposed principles are set out below.

Principle 1: Before offsets are considered, impacts must first be avoided and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impacts.

The policy states:

> *Where all feasible measures have been taken to avoid or minimise the impacts, offsets should be used to compensate for the remaining impacts. The FBA provides specific instructions for avoiding and minimising impacts on biodiversity.* ***If necessary****, proponents will be required to clearly explain why certain impacts cannot be avoided or minimised any further. Some impacts are more complicated or severe, such as those that are* ***likely to cause extinction*** *of a species from an area or significant reductions in vegetation bordering streams and rivers. These will require additional consideration by the consent authority before the option of offsetting is used. (*emphasis added*)*

While this does apply the mitigation hierarchy, justification may not be required and the principle of red flags/no go areas is overridden. The policy implies that everything is amenable to offsetting. Even where a project could cause a local extinction offsets could still be considered.

We submit that any ecologically robust offsets policy must include 'red lights' as there is biodiversity in NSW that simply cannot be offset. These must be clearly defined in the relevant legislation.

Principle 2: Offset requirements should be based on a reliable and transparent assessment of losses and gains.

EDO NSW supports the use of a transparent and repeatable methodology to be used by accredited ecological consultants. The FBA must be based on the best available information (and regularly updated). The tool must be transparent and accessible. We note concerns about the proposed FBA below.

EDO NSW has also previously supported an accreditation scheme for ecological consultants to be legislative.[2]

[2] See EDO NSW *Submission on Accreditation to undertake threatened species and biodiversity assessments,* February 2005, available at: http://www.edonsw.org.au/native_plants_animals_policy.

Principle 3: Offsets must be targeted to the biodiversity values being lost or to higher conservation priorities.

The proposed NSW policy states:

> ***vegetation** – the policy broadens the requirement for offsets to be 'like-for-like', meaning offsets can include similar vegetation types in the locality that are more highly cleared than the vegetation being impacted on.*
> ***threatened species** – in certain circumstances, a species can be offset on a basis that is not strictly like-for-like, provided it is not critically endangered or listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. In these circumstances, a species can be offset with a similar species in the locality that is under the same or a greater level of threat, but this will need to be approved by the consent authority... Broadening the scope of entities that can fulfil the offset requirements provides **greater flexibility for proponents and recognises that exactly the same biodiversity is not always available for an offset**. The policy recognises that protecting and improving biodiversity that is of similar value but under a greater level of threat can also provide beneficial outcomes for NSW* (emphasis added).

This proposal is not consistent with the fundamental principle of like for like.

The FBA that sets out the proposed offset assessment process expands the like for like concept almost beyond recognition, and is inconsistent with Principle 3 itself. Instead of offsetting species for species, the FBA provides that vegetation of the same *class* can be included in the offset 'credit profile' (p39), and stretches the nexus even further by allowing variation of the offset rules to include vegetation from the same *formation* for ecosystem credits (p40). Similarly in relation to individual threatened species, the FBA does not require offsets of the same species, but allows variation of the offset rules to include species from the same *Order* for fauna species and the same *Family* for flora species (p41). These proposed variation rules allow offsetting from very broad ecological categories that may have a tenuous link to the actual species or population being impacted. Inclusion of such 'variation' rules undermines the ecological integrity of the proposed methodology, and will simply facilitate and endorse the net loss of certain threatened species and communities.

Principle 4: Offsets must be additional to other legal requirements

We strongly support this principle, but further detail is required on how it will be clearly implemented.

It is difficult to envisage what management actions would not already be covered by a Property Vegetation Plan (**PVP**) under the *Native Vegetation Act* that could gain additional biodiversity credits. It may be useful to provide landholders with some case studies or guidance to illustrate this.

In relation to public land, the Draft Policy is confusing as it provides a discount for "overall credits for each management action already legally required on the land" (p9). This implies that credits can still be gained (albeit at a discounted value) for actions already required, i.e., the actions are not additional.

In relation to carbon credits, EDO NSW has consistently supported a range of ways that landholders may generate additional income streams for biodiversity stewardship or land management on their properties. However, further detail is needed to ensure biodiversity and carbon farming outcomes are compatible. For example, some carbon farming involves planting mono-cultures or species that may not support a range of local biodiversity.

Furthermore, timeframes for management actions may differ, for example, CFI timeframes may allow some clearing whereas biodiversity offsets should be in perpetuity.

Principle 5: Offsets must be enduring, enforceable and auditable

EDO NSW strongly supports this principle.

However, we do not support a policy that allows offsets to be offset again in the future (p 10, point d). Currently, across NSW, there is no instrument that ensures this cannot happen, and it regularly occurs (see the Warkworth case example noted below).

We note aquatic biodiversity offsets need not be permanent. We make further comment in relation to offsetting aquatic biodiversity below.

Principle 6: Supplementary measures can be used in lieu of offsets.

This principle is of serious concern to EDO NSW and has the potential to undermine the environmental outcomes of the whole policy. The Draft Policy states:

> *If appropriate offset sites cannot be found, proponents can provide funds for supplementary measures. All reasonable attempts must be made to locate appropriate offset sites before supplementary measures can be undertaken, as offset sites covered by biobanking agreements achieve a more clearly measurable conservation gain.*
> *Supplementary measures are measures, other than protection and management of land as an offset site, that are known to improve biodiversity values. They may include:*
> - *actions outlined in threatened species recovery programs*
> - *actions that contribute to threat abatement programs*
> - *biodiversity research and survey programs*
> - *rehabilitating degraded aquatic habitat.*
>
> *The amount of money to be contributed to supplementary measures will be calculated so it is approximately equivalent to the cost of an offset site.*
> *Ensuring the amount a proponent is required to contribute to supplementary measures is commensurate with the cost of establishing an offset site will prevent an artificial bias towards supplementary measures over offsets.*

The Draft Policy clearly promotes the use of indirect offsets. This principle essentially allows a developer to buy their way out of a difficult offsetting requirement. This will be particularly detrimental for areas where there is no offset available because of the scarcity of the biodiversity impacted. This is a breach of the like for like principle and the red light principle. What is being suggested is a compensatory payment, not an offset.

EDO NSW continues to oppose the use of indirect offsets or 'supplementary measures' to achieve the goal of enhancing, or even 'improving or maintaining', environmental quality.[3] Four reasons support this position.

1. It is very difficult, if not impossible, to measure the environmental gains when the results of indirect offsets are balanced against the losses occasioned by a development. EDO NSW submits that in order for an offsets policy to be viable, the gains must be measurable with a reasonable degree of certainty. This is simply not the case when indirect offsets are deployed.

[3] See ANEDO's *Submission on the Use of environmental offsets under the EPBC Act 1999 – Discussion Paper*, December 2007, http://www.edo.org.au/edonsw/site/pdf/subs/071204epbc_offsets.pdf.

2. The relationship between many types of indirect offsets and the environmental gain sought to be achieved is dependent on many contingent and uncertain factors. Many proposed schemes currently contemplate, for instance, that funding for research may comprise part of an acceptable offset. In order to achieve an effective environmental outcome, however, research must not only be performed to an acceptable level, but it must also be implemented and there must be systems in place for evaluation of its impacts. This in turn is dependent on adequate funding. The uncertainty inherent in this process renders such forms of indirect offsetting ill-suited to achieving enhanced environmental outcomes.
3. As noted, effective offsets must be additional to activities that would have been undertaken in the normal course of events. It is difficult to demonstrate that indirect offsets comprise the requisite degree of additionality.
4. The use of indirect offsets contradicts the principle of 'like for like' offsetting that, in EDO NSW's view, should be a fundamental component of any offset strategy.

In preliminary discussions with the Office of Environment and Heritage (**OEH**) as to how this might be applied, we understand the proposed tiered approach requires a proponent seek direct offsets first and it would be very rare that no direct offsets were used. However it was conceded that it was technically possible for 100% of an offset requirement to be discharged by funding supplementary measures. As noted above, this would not constitute an offset as it would not offset the impacted biodiversity and would in fact result in a net loss of the impacted biodiversity.

Furthermore, there is a difference between the Commonwealth and NSW policies. The Commonwealth Offsets Policy caps the use of indirect offsets at 10%. The NSW Draft Policy does not impose a cap, and we understand that NSW has interpreted the Commonwealth cap very narrowly – i.e., to only cover "research, survey and education" (and even that cap can be exceeded in some circumstances, Appendix 1, p23). EDO NSW was involved in expert consultations on the development of the Commonwealth policy and we believe that the intention of the cap on indirect offsets was to apply more broadly than the NSW construction. This difference may prevent the NSW policy being accredited as meeting the Commonwealth standard unless a comparable cap is implemented.

We also note that the draft policy states: *The amount of money to be contributed (to a supplementary measure) will be calculated so it is approximately equivalent to the cost of an offset site.* This is inappropriate. Supplementary measures will clearly have less environmental value that direct offsets so there should be a financial penalty for supplementary measures.

<u>Principle 7:</u> Offsets can be discounted where significant social and economic benefits accrue to NSW as a consequence of the proposal.

Another alarming principle is the discount principle which states:

> *This policy explicitly allows offset requirements to be reduced when they **cause a project to be unviable** and the project has a significant overall social or economic benefit.*
> *The rigorous method for determining offsets provided under the FBA aims for offset requirements that will result in an overall '**no net loss'** to biodiversity. It is acknowledged that, in certain rare circumstances, an offset requirement may make a project that is of significant social and economic importance unviable.*
> *This principle recognises that decisions on whether to approve major projects under the Environmental Planning and Assessment Act 1979 (EP&A Act) involve a consent authority also considering the social and economic aspects of a proposal. If overall social and economic benefits are significant, **it might be reasonable for a consent***

> ***authority to modify the offset requirement if it would otherwise prevent the project from proceeding.*** *The overall social or economic benefits would have to be large enough to justify the additional environmental impact caused by reducing the offset requirement.*
> *A decision by a consent authority to discount an offset will be made only in very specific circumstances in accordance with clear criteria. These criteria will be developed during transitional implementation of the policy in order to provide further certainty to proponents* (emphasis added).

This principle potentially allows environmental concerns to be overridden by socio-economic considerations. As biodiversity has not been given a dollar value, the ledger will always tip in favour of major projects if the criteria are economic.

Mining policy in NSW already attempts to prioritise 'the economic significance of the resource' by making it the primary consideration of decision-makers.[4] This is contrary to recent court decisions. In relation to the NSW *Warkworth* decision, the Land and Environment Court previously found Rio Tinto's economic modelling deficient in many ways, including its methodology that over-estimated the benefits of the mine. The Court of Appeal found no fault with the Land and Environment Court decision that the economic benefits of the coal mine did not outweigh the significant impacts on Bulga residents and the destruction of rare forests containing endangered plant and animal species.[5]

Such economic prioritisation policies are likely to contribute to the incremental and permanent loss of significant biodiversity in NSW, and completely undermine the ecological credibility of the FBA.

f. Aquatic biodiversity (p11)

Our comments in relation to statements in the Draft Policy regarding offsetting aquatic biodiversity are set out below.

At the outset we note that the FBA is not suited to sub-tidal benthic or pelagic marine ecosystems and that offsets are defined as areas of 'land' which is not appropriate for many aquatic ecosystems. In addition, information on marine species and ecosystems in NSW is relatively limited so the true impact of any major project may be difficult to define.

The 'like for like' principle is broadened in relation to aquatic biodiversity - *broadening the scope of entities that can fulfil the offset requirements provides greater flexibility to proponents and recognises that exactly the same biodiversity is not always available for an offset (p9)*. As with terrestrial biodiversity we note that in practical terms this means that biodiversity being destroyed will be irretrievably lost as is not being directly offset.

The Draft Policy (p10) states: *Due to the special circumstances that exist for aquatic biodiversity offsets which are largely located on public land, in-perpetuity offsetting mechanisms such as biobanking agreements are not considered necessary in all circumstances.* This assumes that areas will always be maintained on public land and managed appropriately. Given the often poor management of public land by public authorities (as identified in the recent Review of Weed Management in NSW[6]), combined with current proposals from both state government and local councils to sell crown and other

[4] See *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.* Note there are amendments to the Planning legislation before NSW Parliament currently that may amend the effect of these clauses of the SEPP.
[5] *Warkworth Mining Limited v Bulga Milbrodale Progress Association Inc* [2014] NSWCA 105. The judgement is available at: http://www.caselaw.nsw.gov.au/action/PJUDG?jgmtid=170680.
[6] http://engage.haveyoursay.nsw.gov.au/weed-management-review.

public land, this is clearly an invalid assumption. Biobanking agreements or equivalent legally secure and transparent requirements must be applied to all offsets. There are also general problems with extending these offsetting principles to marine environment which is not 'owned' by any entity.

In relation to impacts on key fish habitat and fish passage, the *Fact sheet: Aquatic biodiversity* states that *"The developer or ecological consultant should then overlay the proposed development footprint over the GIS, map or aerial photograph and 'ground-truth' this information via field surveys on the development site. This assessment will also determine the likely direct or indirect impact on marine protected areas in or adjoining the development site".* Use of a development footprint is insufficient to determine in-direct impacts, particularly for aquatic biodiversity. Impacts to biodiversity such as changes to water quality, quantity, or water temperature resulting from project implementation will not be determined by the development footprint. The FBA needs to make explicit the requirement that impacts on habitat include indirect impacts and that this will require a more extensive consideration of impacts. This raises a broader issue of connectivity and the need to ensure that a project by project and habitat by habitat approach does not reduce connectivity for aquatic species, particularly for those that use different habitats at different stages of their lifecycle.

The *Fact sheet: Aquatic biodiversity* also states "*Payment of any offset funds for supplementary measures will be deposited into the Fish Conservation Trust Fund established under the Fisheries Management Act 1994 and quarantined to be used for supplementary measures for aquatic biodiversity".* It is unclear how this will occur. The *Fisheries Management Act* (section 237) allows funds for the Fisheries Conservation Trust Fund to be used for (amongst other things) "*(c) the costs of management and administration of Part 7 or 7A and the regulations under those Parts",* and *"(d) the costs of ensuring compliance with the regulatory controls under Part 7 or 7A and the regulations under those Parts".* It must be made clear how the funds be quarantined to ensure environmental outcomes are achieved.

EDO NSW also has concerns about whether the process for determining aquatic biodiversity offsets is sufficient to offset the true environmental impact. The Fisheries NSW policy and guidelines specify a *"minimum 2:1 offset for Type 1–3 key fish habitats"* but calculate this *"at a rate of $52/m^2 or $104/m^2 to meet the 2:1 offsetting requirement",* subject to annual inflation. The fact that there is flexibility in this rate does not provide the community with certainty of what will be required from project proponents. Further, this rate was determined based on a review of international literature but it means the rate does not include an explicit process for valuing aquatic biodiversity and has not been assessed in terms of the true costs of achieving aquatic biodiversity offsets in NSW.

g. Biodiversity assessment – Draft Framework for Biodiversity Assessment (FBA)

The Draft Framework for Biodiversity Assessment (FBA) essentially creates a duplication of the biobanking process but without guarantee of in-perpetuity outcome. Instead of creating an entirely new process, EDO NSW recommends that the NSW Government should strengthen the existing biobanking scheme for broader use. EDO NSW has commented extensively on the biobanking methodology, and we refer to our previous recommendations against weakening the scheme.[7]

[7] For example, see: Submission on proposed amendments to the Biobanking Assessment Methodology, 19th November 2010, available at: http://www.edonsw.org.au/native_plants_animals_policy.

In terms of the draft policy statements on how the scheme will work, we make the following comments.

- There needs to be clearer guidance/requirements on how a proponent must demonstrate their efforts to avoid or minimise environmental impacts. The Draft Policy states that the rigour of explanations will be assessed, however it is likely that economic arguments will override ecological considerations for development options.
- As noted, "Impacts requiring further consideration" (p14, point 3) should clearly set out red lights. Unacceptable impacts – such as causing extinction – cannot be offset. The Draft Policy proposes that projects can proceed even with such impacts.
- *A key principle underpinning the policy is that offset requirements should be based on a reliable and transparent assessment of biodiversity losses and gains*. Such a principle is appropriate but rather than achieving this principle, the proposed FBA would effectively formalise the destruction of native vegetation and extinction of species and communities. Avoiding such an outcome requires the FBA to more accurately and effectively implement the like for like principle.
- *The consultant compares the information they collected on the 10 vegetation attributes to values held in the Office of Environment and Heritage's (OEH's) Vegetation Benchmarks Database. The benchmark values reflect what would be expected for the vegetation type if it had little or no evidence of human modification. Based on its comparison to the benchmark value, the vegetation is given a score out of 100.* It is unclear whether this is an objective or subjective process.
- *The better condition the vegetation is in, the higher the value of the site*. This is an inappropriate starting position when dealing with listed threatened species or ecological communities. A listing reflects the significant impacts of previous human activity on the species or community so even poor condition vegetation is of high value when the vegetation is at risk of extinction. Similarly, the suggestion that listed vegetation communities can occur in a condition "*below the threshold for where an offset is required"* is completely inappropriate.
- EDO NSW supports making the requirement that ecological surveys must be undertaken at the correct time of year explicit.
- Stage 1 (p 6) refers to areas of 'temporary clearing'. This is not defined and it is unclear whether the policy is effectively saying if clearing is only temporary it does not require the same consideration.
- Stage 1 (v) (p 6) refers to mapping that shows the location of any threatened species that*, in the opinion of the assessor, cannot withstand further loss*. This seems to make such an assessment subjective, rather than using the established biobanking processes.
- The FBA states (p 25) - *Determination of the reasonableness of measures aimed at minimising impacts on biodiversity can take into account*: *the cost-effectiveness of the proposed measure (being the cost of undertaking the measure compared to the cost of compensatory biodiversity conservation achieved through an offset); industry best practices and standards that avoid and minimise impacts; the proportion of the total cost of the major project that is dedicated to biodiversity Protection; and the risk of failure of the measure.* While EDO NSW supports including an explicit requirement and measures to avoid and minimise as part of the offsetting hierarchy, we have serious concerns about prioritising economic considerations over environmental protection as noted above.
- We note that the section of the FBA referring to impacts to critical habitat only refers to the *Threatened Species Conservation Act* (p 35). The *Fisheries Management Act* also has provisions for critical habitat and should be included in this consideration.
- The section of the FBA discussing how impacts of species movement along corridors will be considered (p 35) uses a generic distance to define a gap requiring further consideration. The use of such a figure gives no consideration to the actual species

using the corridor and whether any smaller gaps have the potential to inhibit movement along the corridor. The section should be updated to require species specific consideration.

As noted above, one of our key concerns with the FBA and the broader policy is the relaxing of the 'like for like' principle. The FBA states (p40-41):

> *10.1.2 Variation of the offset rules for matching ecosystem credits (for ecological communities and threatened species habitat). The consent authority may approve a variation of the offset rules for using ecosystem credits where a proponent can demonstrate in the biodiversity offset strategy that:*
> *(a) all reasonable steps have been taken to secure the number and type of ecosystem credits impacted on at the development site, and*
> *(b) the PCT to which the ecosystem credit relates is not associated with an ecological community that is listed on the EPBC Act or listed as a critically endangered ecological community on the TSC Act.*
> *In addition the variation will only be approved if the alternative ecosystem credits:*
> *are from same vegetation **formation** as the PCT, and*
> *have a percent cleared value in the major catchment area equal to or greater than the percent cleared of the PCT for which the ecosystem credits are required for the impacts of development.*
> *10.2.2 Variation of the offset rules for species credits species The consent authority may approve a variation of the offset rules for using species credits, by allowing the species credits created at an offset site for another species to that impacted by the proposed development where a proponent can demonstrate in the biodiversity offset strategy that:*
> *(a) all reasonable steps have been taken to secure the number and types of species credits impacted on at the development site, and*
> *(b) the species to which the species credit relates is not listed on the EPBC Act or listed as critically endangered on the TSC Act.*
> *In addition the variation will only be approved if the alternative species credits:*
> *(c) relate to a species or population from the same **Order** (for fauna species), or the same **Family** (for flora species) as the species identified in the credit profile in accordance with Section 10.1 of the FBA* (emphasis added).

As noted above, allowing offsets to be drawn from such broad ecological categories undermines the ecological integrity and credibility of the entire scheme. Such a policy will simply endorse the net loss of our rarest, most threatened and heavily impacted species and communities.

h. Fulfilling offset requirements

i. Biodiversity Offset strategy

EDO NSW strongly supports the requirement for proponents to secure offsets *before* development commences. The Draft Policy allows for securing offsets *after* development commences (p15). This has proved problematic in NSW – for example in relation to mining projects such as at Maules Creek - where undertakings to secure offsets post-development commencement have been unenforceable and therefore varied as the relevant offsets simply do not exist. This has resulted in offset variations and by the time variations are negotiated the original vegetation has already been permanently cleared.

ii. *Biobanking agreements*

The Draft Policy promotes the use of biobanking agreements to secure offsets. EDO NSW has been involved in the development and analysis of the NSW biobanking scheme for a number of years. We recognise there are strengths of the scheme – such as the use of a scientific methodology, ongoing management payments for biodiversity management actions, and a comparatively high degree of legal security and enforceability of offsets. However, we are concerned about recent reforms to make the scheme easier and encourage more scheme participants. Like the Draft Policy, reforms to the biobanking methodology include relaxing fundamental principles such as like for like offsets.[8]

The differences between the current biobanking scheme and the Draft Policy potentially undermine the concept of biobanking. The fact sheet on the relationship of the draft policy to the biobanking scheme states:

- *new features in the policy– the draft policy includes new features such as supplementary measures, rehabilitation and discounting, that are not part of the BioBanking Scheme.*
- *the use of red flags – the policy does not incorporate the 'red flag' concept that is used in the BioBanking Scheme. Red flags are certain, specifically-defined areas of land that have high conservation values. Under the BioBanking Scheme, development cannot impact on these areas of land except in certain circumstances when a 'red flag variation' is obtained. While the policy does not have red flags, it does acknowledge that some impacts on biodiversity are more severe and may not be able to be offset. These impacts will be considered further by the consent authority before development can proceed.*

As stated above, the overuse of supplementary measures, use of rehabilitation and discounting, and the absence of red flags are serious deficiencies of the Draft Policy. We recommend strengthening the existing biobanking tool and applying it consistently in NSW, rather than producing a new policy with significantly weaker environmental requirements.

iii. Rehabilitation of mine sites

The FBA introduces the concept of formal assessment of biodiversity offsets on previously mined land. In this section, we address section 11.5 of the FBA that refers to land that is being mined as part of the major project approval, rather than land that has been previously mined by a different organisation and the rehabilitation of which can be used as a supplementary offset measure.

EDO NSW strongly opposes the generation of offset credits on previously mined land. Research to date suggests that there are few, if any, successful examples of rehabilitation of open cut mining areas. Without presenting an exhaustive literature review, it is clear from the literature that offsetting faces significant challenges in achieving environmental outcomes. Maron *et al*. (2012)[9] conducted a review of restoration ecology literature and concluded that "*Confidence in the ability of restoration to deliver genuine biodiversity offsets is undermined by the problems of defining and measuring the biodiversity values that are lost and gained, considerable uncertainty surrounding the effectiveness of restoration techniques, and long time-lags. The increasingly broad application of offsetting, often with limited scientific support, is therefore of concern*".

[8] See previous submissions on biobanking available at http://www.edonsw.org.au/native_plants_animals_policy.
[9] Maron, M., Hobbs, R., Moilanen, A,. Matthews, J., Christie, K., Gardner, T., Keith, D., Lindenmayer, D. and McAlpine, C. (2012) Faustian bargains? Restoration realities in the context of biodiversity offset policies. *Biological Conservation* 155: 141–148.

These challenges are enhanced when offsetting occurs on previously mined land. Evidence given in *Hunter Environment Lobby v Minister for Planning & Ashton Coal Operations Limited*[10] (**Ashton**) demonstrated that there is no certainty that reconstructed landscapes can be returned to the same structural, hydrodynamic or ecological function that existed prior to mining. Specifically, hydrologist and soil engineer, Associate Professor Willem Vervoort noted that "*Existing research on mine rehabilitation mostly suggests deficiencies in the nutrient and or soil quality of rehabilitated sites, even after application of remedial nutrients*".

In EDO NSW's view, this in turn significantly impacts the ability to restore biological diversity, particularly to a vegetation community that has been selected prior to any rehabilitation taking place as is proposed through this policy. Associate Professor Vervoort went on to comment "*the few long term studies suggest that short term success actually might inhibit long term sustainability, as the initial rapid growth supported by fertilizer applications to manage erosion moves the ecology in a specific direction. The resulting ecological community is not necessarily the most stable community on the long term. This could lead to dramatic changes (vegetation dieback) at a later stage due to insect damage, age or lack nutrient. Given how new the science of mine rehabilitation is (about 20 years) there is also not much long term research available to develop a clear understanding of landscape development post mining. As a result it is not possible to verify if the proposed rehabilitation will actually succeed*".[11]

Given that the purpose of offsets is to create a no net loss situation, and in EDO NSW's view should be to create an environmental gain, to incorporate an offset technique that is unproven and, based on current evidence, unlikely to result in ecological sustainable vegetation communities within any reasonable timeframe is entirely inappropriate. Should the use of biodiversity credits from previously mined land proceed, EDO NSW believes there should be significant changes to the proposed process to strengthen the possibility of the process providing a useful environmental outcome.

The Mine Site Rehabilitation Fact Sheet notes that there are two options for calculating offset credits, namely:

- ***option 1 – two-stage model****: under this option, proponents will receive upfront biodiversity credits for the initial stage of rehabilitation. Beyond this, they will need to set up a biobank site on the land to generate credits that can be sold or used in the future.*
- ***option 2 – deferred retirement arrangement****: proponents will purchase all biodiversity credits they need to offset their development upfront. Credits will be refunded on successful completion of the ecological rehabilitation* (p 45).

EDO NSW does not support option 1 and believes that it should be removed from the FBA. Only option 2 provides any certainty to the community that biodiversity offsets can and will be achieved.

If option 1 remains, significant changes must be made to the FBA to ensure adequate environmental outcomes are achieved.

As discussed in relation to the proposal to broaden the like for like requirements, the use of Plant Community Types (**PCTs**) as an ecological indicator fails to meet a no net loss requirement of biodiversity offsetting. Again in relation to mined land rehabilitation, the FBA

[10] See: http://www.edonsw.org.au/current_cases.
[11] Vervoort, W. (2013) Expert Report HEL v Minister for Planning and Ashton Coal. Land and Environment Court of NSW.

only requires that the mine specify a PCT from the same vegetation *formation*. In the context of mine rehabilitation, this is likely to result in an even greater loss of biodiversity as the process will drive proponents to attempt to rehabilitate less complex environments.

The inclusion of the need for the post-mine land use to "*achieve the rehabilitation of self-sustaining and recognisable PCTs"* (p 45) is important but the suggestion that this will be achieved through measureable targets in the Major Project Approval is concerning. To date, Major Project Approvals have largely defined success in on-site rehabilitation based on activities such as tree planting and landscape contouring. Rehabilitation objectives are therefore met when specified activities have been undertaken. This is vastly different to a requirement to obtain a self-sustaining PCT and there is no information in the FBA on how this would be defined or how the proponents would demonstrate that this has been achieved. Rather, the issue is deferred to the proponent's requirement to describe measurable site attributes, many of which fail to reflect a healthy and self-sustaining ecosystem.

Stage 1 of the process mine rehabilitation assessment process is described as: *credits are generated to achieve a self-sustaining and recognisable PCT. These credits can be used to offset a proponent's current development proposal* (p 45).

In effect, the FBA will award proponents credits for work that is assumed to be possible at some future date. Given that mining projects generally extend for 10-20 years, and that rehabilitation of species to a mature state, let alone a self-sustaining state, can reasonably be expected to take at least 30 years, this process provides biodiversity credits for environmental outcomes that will not be achieved for at least 40 years, if at all. While Stage 1 limits the credits allowed to be generated to ecosystem credits (although even here, some exemptions are envisaged), this process is highly uncertain, has a high risk of failure and provides no community certainty that the offsetting process will achieve a no net loss situation.

The FBA requires that the biodiversity offset strategy must outline:

- *the rehabilitation objectives and completion criteria for each PCT, written so that they are specific, produce measureable data and demonstrate that the proposed outcomes are achievable and realistic within the timeframe specified.*
- *for each PCT, specifying the increase in the site attribute score that will be achieved for each site attribute set out in Table 7.*
- *the total number of biodiversity credits proposed to be created for the ecological rehabilitation for each PCT that is the target of the rehabilitation in accordance with Section 11.5.1 of the FBA.*

Given that the goal of a self-sustaining ecological community is difficult to quantify, in reality it is likely that projects will define their outcomes based on the site attributes listed in Table 7 (the same process required to determine the requested biodiversity credits). More specifically proponents are likely to aim for the minimum necessary to achieve the credits. The minimum standards required to obtain site attribute condition scores as described in Table 7 in no way reflect a healthy self-sustaining ecological community. Rather they are indicative or either a young ecosystem (that could not yet be considered to be self-sustaining) or a degraded system (which should not be considered an adequate offset).

The calculation of the number of ecosystem credits generated (Equation 11) includes a scaling factor of 0.25. This scaling factor is too high. It fails to adequately recognise the significant risk of the activity, the inevitable loss of biodiversity that arises from the total loss of ecological function, and the lag in the rehabilitation timing.

The fact that the FBA recognises that habitat may need to be augmented by the use of logs and nest boxes, highlights the lack of ecological niches and functionality available in newly rehabilitated land. The use of logs raises the risk of relocating logs from other areas where they are providing habitat and so reducing the quality of surrounding habitat.

The FBA states that: *In some circumstances, it may be possible to create species credits for a threatened fauna and flora species, such as grasses.*

The document goes on to provide the calculation for determining species credits. However, no detail is provided on which circumstances would justify the creation of species credits. This creates significant uncertainty about the scale of credits that may be available through mine rehabilitation works. For the reasons outlined above, the scaling factor used here is also too high. This is of particular concern, given that the proponents may choose to rehabilitate to any PCT listed in the VIS database. This situation creates the potential for a significant shift from woodland and forest communities to grassland communities on rehabilitated mine sites.

Stage 2 of the process is described as: *Where rehabilitation objectives have been achieved and relevant performance indicators and completion criteria have been met, additional biodiversity credits can be generated where the land is secured by an in-perpetuity conservation measure. These credits cannot be used to offset a proponent's current development but can be sold or used to offset future development* (p 45-46).

This significantly undermines the current biodiversity offset programs in that the current system requires in-perpetuity protection at the time of offsetting. The existence of Stage 2 in this process, effectively allows Major Project proponents to 'double-count' their offsets, once during the current development and again for a future development. This stage must be removed from the process and in-perpetuity protection must be required for all offsets.

The FBA also flags a Stage 3 in the credit generation process, specifically: *Once the completion criteria for establishing a self-sustaining PCT have been met, the biodiversity value of the ecological rehabilitation at the landscape value scale can be assessed and used to contribute to the generation of further biodiversity credits (p 48).*

In effect, if the rehabilitation does succeed, the proponent may obtain further credits simply for meeting their initial obligations. This is inappropriate and must be removed.

iv. Supplementary measures

Appendix 1 of the Draft Policy sets out further information on supplementary measures (p19). We note our serious concerns with the use of supplementary measures in relation to principle 6 of the draft policy (discussed above).

As discussed throughout this submission, EDO NSW completely rejects the proposal to weaken like for like requirements in biodiversity offsets, and to allow tenuously related actions to count as biodiversity offsets. The environmental impact of major projects will be even greater if the weakening of like for like is further extended to include wide-spread and systematic use of supplementary measures.

As noted, there is no proposed overall cap on the use of supplementary measures (only on "research, survey and community education programs"). The Appendix notes that the 10% cap on research, survey or education, can in fact be exceeded (p23). The policy acknowledges that in some circumstances a proponent may need to meet their entire offset

requirement through supplementary measures and will need to negotiate an amount to spent on such measures with OEH (p21 -22).

EDO NSW therefore submits that no actions beyond the currently described Tier 1 should be allowed.

The interim method for calculating the cost of supplementary measures is highly subjective. The policy notes that supplementary measures will be available when direct offsets cannot be achieved. However, the method of calculating the cost of supplementary methods involves estimating the total cost of the direct offsets required (as determined by the FBA). If 100% direct offsets are not available, then there is no objective way to determine how much a landholder may have charged for the offset site or how much management costs associated with the hypothetical property would be. To simply extrapolate the cost from the available direct offsets ignores the increased value given to scarce resources. If 100% of offsets are supplementary measures there is no basis for calculating the cost of the supplementary offset.

The rules for applying measures are guidance only (p21) and therefore do not provide any adequate safeguards against overuse or inappropriate use.

The draft proposal to allow rehabilitation of derelict mine sites to be used as a supplementary measure (Tier 4) is of particular concern. The Attorney General has identified that 'Derelict mines may represent the largest contamination liability facing our State. There are approximately 500 derelict mine sites'[12]. Incorporating this as a supplementary measure is an unwise use of financial resources as such a measure could easily absorb all funds provided for supplementary measures for very little and uncertain conservation gain.

v. Matters for further consideration

As noted above, these issues should be clearly defined red lights as not all biodiversity impacts are amenable to offsetting.

vi. Discounting

As noted above in relation to principle 7, EDO NSW strongly opposes the proposed discounting of offset requirements. OEH indicated that this particular option would only be exercised in exceptional circumstances – such as for public hospitals – however, in reality it is likely that every application for a major project approval will be accompanied by an application for a discount on economic grounds if this principle remains in the policy. This has the potential to undermine the credibility of the entire policy and result in an increased loss of certain threatened species and communities under the guise of offsetting.

3. NSW Biodiversity Offsets Fund for Major Projects

EDO NSW supports measures to financially assist landholders to establish and manage biobanks long-term. However, we make the following brief comments on the NSW Biodiversity Offset Fund for Major Projects Discussion Paper.

We submit that proponents should only be able to satisfy their offset requirement through a monetary contribution to a Biodiversity Offset Fund (**Fund**), where an actual appropriate offset exists. Otherwise biodiversity habitat destruction will occur with no guarantee of adequate offsetting. We are therefore concerned about the role of the Fund to siphon money

[12] http://www.audit.nsw.gov.au/News/Volume-Six-2011.

for supplementary measures that may have no actual environmental benefit relevant to the biodiversity impacted by a major project. Our concerns about the widespread use of supplementary measures are noted above. If this is the primary role of the Fund, then it will be a mechanism to undermine the whole ecological credibility of the Draft Policy and FBA.

The Discussion Paper emphasises the role of the Fund to locate offsets that are "strategically important for biodiversity in NSW". This is a very general criteria and, as noted above, is likely to be implemented at the expense of the 'like for like' principle. More strategic and coordinated purchase of offsets is a good policy goal but "*locat(*ing) *offsets in places that are strategically important for biodiversity in NSW*," does not replace the need for like for like offsetting. While there may be landscape benefits from this approach, there will be net losses of impacted biodiversity.

The main goal of the policy seems to be removing all project proponent responsibility for ongoing management of offsets, effectively making it a NSW Government responsibility. This risks significantly shifting the costs of environmental management from corporations profiting from the creation of environmental impacts to the tax-payer. This is particularly true in the long-term as in perpetuity management obligations would not be required of the project proponent. To avoid the risk of tax payers bearing the burden of future environmental management made necessary by private actions, there must be a significant financial penalty placed on any offsets generated through the Fund. The existence of a Fund Manager assumes that money in the Fund will be invested in the market. As we have seen in the recent Global Financial Crisis, this process creates a significant risk of Fund assets being list and such a risk must be considered in the financial penalty added to upfront Fund payment.

We submit that it would be inappropriate for the Fund Manager to be a private entity because of the risk of a private entity focussing on profit creation rather than environmental management (although we recognise that if such a Fund is established sound financial management will be required). If the NSW Government chooses to absolve corporations of their biodiversity responsibilities they must be accept responsibility for the financial risks associated with ongoing biodiversity management.