



environmental defender's office new south wales

Submission on "BioBanking – A Biodiversity Offsets and Banking Scheme" Working Paper

March 2006

The EDO Mission Statement

To empower the community to protect the environment through law, recognising:

- ◆ *the importance of public participation in environmental decision making in achieving environmental protection*
- ◆ *the importance of fostering close links with the community*
- ◆ *that the EDO has an obligation to provide representation in important matters in response to community needs as well as areas the EDO considers to be important for law reform*
- ◆ *the importance of indigenous involvement in protection of the environment.*

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Dear Simon,

The Environmental Defender's Office of NSW (EDO) welcomes the opportunity to provide comment on the DEC Working Paper: *BioBanking – A Biodiversity Offsets and Banking Scheme* December 2005 (Working Paper).

We acknowledge the increased level of detail contained in the Working Paper. As noted in our previous submission on the DEC Discussion Paper *Biodiversity Certification and Banking in Coastal and Growth Areas* September 2005,¹ the level of detail on which to comment was scant. We note that the latest Working Paper has included references to concerns raised in our previous submission, including in relation to:

- the need for the scheme to complement local government planning processes and be consistent with property vegetation planning processes under the *Native Vegetation Act 2003* (page 3);
- that assessment of biodiversity must include assessment of the structure, function and composition, operating across scales, and ensuring long term viability and functionality of biodiversity (page 3);
- that a range of tools are needed to achieve conservation outcomes (page 5);
- funding must be set aside for ongoing management of biobanking sites (page 7) and stewardship payments (page 11); and
- an indication of further detail on financial incentives and tax breaks which may be available (page 9).

We understand that the BioBanking assessment tool is yet to be developed and therefore specific detail is unavailable. We hope that through EDO participation on the proposed Review Group and focus groups, that we will have the opportunity to provide detailed comment on the assessment methodology.

We note that through the focus group process, some issues have already developed beyond what is included in the Working Paper. Similarly, we note that additional information has been provided to focus group members. For the purpose of this submission, we note key ongoing issues of concern and identify issues specifically arising from the Working Paper. We will provide more detailed feedback as issues develop through our involvement on various focus groups.

¹ The previous EDO submission can be found at www.edo.org.au/edonsw.

Our specific comments on the Working Paper are set out below in relation to the following issues:

1. Biobanking Scheme – principles, process and framework

- Recognition of benefits and limitations
- Requirement to avoid and minimise impacts
- Identification of habitats where offsets cannot apply
- Offsetting rules
- Additional questions

2. Biodiversity Assessment Tool

- Expertise to run assessment tool
- Testing the ecological efficacy of the assessment tool
- Testing the value of management actions
- Separate measurements for biodiversity value
- Consideration of conservation status
- Consideration of population size and significance
- Scoring impacts from threats not related to land clearing
- Additional questions

3. Administration of the Scheme

- Monitoring and auditing against performance targets
- Auditing of the assessment tool
- Additional questions

4. Project Tasks

1. Biobanking Scheme – principles, process and framework

Recognition of benefits and limitations

As EDO has previously noted, existing legislative approaches to assessing threatened species conservation in the development assessment process have so far failed to adequately protect biodiversity in NSW. An alternative approach is required to complement existing methods. The EDO recognises that BioBanking has the potential to provide conservation benefits in three ways. First, it formalises a more scientifically rigorous approach to determining offsets through the biodiversity assessment tool. Second, it allows for a more strategic approach to locating offsets. Currently, offsetting is undertaken inconsistently and in a way that often lacks scientific rigor. Third, it facilitates the creation of incentives and funding for conservation activities on private land. It is widely recognised that conservation on private land is vital to the protection of biodiversity in NSW, and EDO supports the provision of incentives to achieve this.

However, it must also be recognised that BioBanking has limitations as a method for assisting the maintenance or improvement of biodiversity in NSW. As noted in our previous submission, these limitations include that:

- Restoration ecology is a new and immature branch of ecology. The underpinning science is undeveloped and subject to much uncertainty. It is very difficult and may not always be possible to recreate habitats to support viable populations, and the translocation of individuals is often unsuccessful. Consequently, the value of habitat that already supports a viable population should not be underestimated. In most cases, it is unclear whether current restoration projects are meeting biodiversity objectives. The time-lag between implementation and results makes monitoring difficult.
- The biodiversity of a site will depend on a wide range of highly complex ecological processes and relationships, which are not well understood by scientists. In reality, no two patches of vegetation are of equal biodiversity value. Any biodiversity assessment tool will be necessarily simplistic and unable to account for the complexity of natural systems.
- There is no scientific consensus and little real data on the ecological validity of using surrogate measures of biodiversity. The biodiversity assessment tools currently in use in Australia use different ecological variables to determine the biodiversity value of a site.
- There appears to be little real data on the biodiversity value of management actions (such as grazing exclusion, weed control, etc) used in the BioMetric tool for the purposes of scoring offsets. Therefore, it is unclear whether implementation of those actions will achieve an improvement in biodiversity value to the extent presumed.

These limitations mean that there is a high risk that widespread use of offsets will fail to assist the maintenance or improvement of biodiversity in NSW. Therefore, we believe that BioBanking must be developed in recognition of its limitations. The limitations and the necessary rules and regulatory safeguards are discussed further below.

Requirement to avoid and minimise impacts

BioBanking should only be undertaken after all feasible options to avoid impacts have been thoroughly investigated, and best-practice mitigation measures to minimise impacts have been implemented (as proposed in the Working Paper, page 3). This should be a condition precedent to any participation in the BioBanking scheme.

To assist proponents undertake this task properly, the regulatory framework should include clear guidance on what must be addressed when considering alternatives to a proposal (alternative projects, designs, etc) and requirements to use best-practice measures to avoid and minimise impacts. It is assumed (although this is not clear in the Working Paper) that the biodiversity assessment tool will be used to assess alternatives to a proposal and minimise impacts in relation to biodiversity.

We note that the legal status of the proposed ‘rule book’ is unclear. A requirement to avoid and minimise impacts should be regulatory, with supporting guidance included in secondary documents. We seek clarification on the legal status and enforceability of proposed guidelines and rule book.

Identification of habitats where offsets cannot apply

BioBanking should be limited in scope by clear identification of habitats where development must not proceed and offsets cannot apply. It was originally envisaged that red light areas would be identified in regional conservation plans and reflected in certified local plans and environmental planning instruments. We understand that it is now the intention of DEC to commence Biobanking prior to the certification of environmental planning instruments. We are therefore concerned that it is the assessment tool that will be indicating red light areas as opposed to a strategic planning process. This ad hoc approach lacks certainty and transparency. We are concerned that the desire to commence Biobanking prior to strategic regional conservation planning is putting the cart before the horse.

The proper identification of red light areas in a regional conservation context is crucial. Restrictions on the application of offsets to certain habitats recognises that some habitats are of such high biodiversity value that impacts cannot be adequately offset without considerable risk of extinctions at local, regional or State levels.

Notwithstanding the fact that threatened species legislation has failed to adequately protect species to date, we are concerned about applying offsets (for the generation of debits, not credits) to threatened species, populations and ecological communities listed under the *Threatened Species Conservation Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*.

We believe that offsets must not apply (for the generation of debits) to the following:

- Critical habitats
- Critically endangered ecological communities
- Known habitat for endangered populations
- Known habitat for critically endangered species
- Riparian areas, local habitat corridors, and others areas of local natural significance (as referred to on page 6 of the DEC Discussion Paper *Biodiversity Certification and Banking in Coastal and Growth Areas* September 2005).

We would also recommend additional limitations on the application of offsets to:

- Endangered or vulnerable ecological communities of a certain size and/or condition
- Known habitat for populations of endangered and vulnerable species of a certain size (appropriate to the species) and/or significance on a regional scale
- Important regional habitat corridors.

Other limitations to the application of offsets may also be appropriate, for example, where there are significant indigenous cultural/social aspects of the biodiversity on a site (as noted by the ALC).

Offsetting rules

Offsets should be subject to strict rules. There would be greater certainty for developers, investors and the community if offsets rules are regulatory and binding, rather than in the form of guidelines. As noted, we seek clarification as to the legal status of the proposed rule book and its enforceability.

Minimum requirements and rules should be drafted in relation to the following issues:

- **Trading between different vegetation types:** The Working Paper identifies that vegetation types with equivalent value can be traded, and suggests that equivalence will be based on scarcity (page 11). We believe that there should be a general rule that limits trade between two fundamentally different vegetation types (for example, a wetland and a rainforest). An appropriate limitation may be to only allow trade between vegetation types within the same vegetation class, as identified in Keith (2004).² The rare exception to this general rule should be where there are clear conservation benefits in doing otherwise. For example, in very limited circumstances there may be an overall conservation benefit in offsetting impacts on a small, unviable and highly degraded patch of a certain vegetation class with a larger, higher quality patch of a different vegetation class.
- **Thresholds for over cleared vegetation types within a region:** A problem with allowing trade between different vegetation types is that over time certain vegetation types (particularly those in areas subject to high development pressure) may experience a significant cumulative net loss. To provide a level of protection against this, we believe that appropriate clearing thresholds should be established for vegetation types within a region. If a vegetation type has already been cleared above that threshold within a region, or if the threshold is reached, no further clearing of that vegetation type should be permitted and offsetting should only apply in relation to the generation of credits. This is consistent with the BioMetric tool.
- **Impacts on threatened species and ecological communities:** Impacts on threatened species and ecological communities (excluding the critically endangered categories that should be red light areas as noted above) should generally only be offset as ‘like for like’ – meaning that an offset must be specific to the threatened species or ecological community that is being impacted. For example, impacts on ‘Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions’ should only be offset by acquisition of land containing freshwater wetlands on coastal floodplains or management actions within that type of ecological community.
- **Offset within the same region:** There should be a regulatory requirement to offset an impact within the same region. If an offset cannot be achieved within the same region, then the proposal must be modified to reduce impacts or it should be refused. This is consistent with the principles for offsets set out in *Green offsets for sustainable development* (2002).³

² Keith, D. (2004) *Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT* Department of Environment and Conservation, Sydney.

³ NSW Government (2002) *Green offsets for sustainable development: Concept Paper*.

- **Definition of region:** Regions must be clearly defined and based on ecological boundaries, rather than non-ecological administrative boundaries. Briggs has identified the importance of matching natural resource management boundaries with ecological boundaries for effective landscape rehabilitation.⁴ An appropriate region may be the Interim Bioregional Regionalisation of Australia (IBRA) regions or IBRA sub-regions. Scarcity must be determined on a regional basis.
- **Offsetting ratios:** There should be a clear regulatory requirement setting minimum offset ratios applying to all offsets. Ratios should be weighted in the favour of conservation (ie, there should be greater than 1 unit of gain for each unit of biodiversity loss). The EDO submits that there should be a minimum ratio of 2:1 (credit:loss) offset ratio requirement, with a far higher ratio where threatened species or ecological communities are involved. This reduces the risk that offsetting will fail to achieve biodiversity outcomes, increases the chance of recovery of a threatened species or ecological community, and enables offsetting costs (ie, price per credit) to more accurately reflect conservation status.
- **Offset for duration of the impact:** There should be a regulatory requirement to offset the impact for the duration of the impact. If the impact is permanent and management actions are proposed to offset the impact (for example, weed control), then weed control must be undertaken on the land in perpetuity at a level that meets the performance target. In this context, conservation agreements used to facilitate biobanking must be attached to the title of land in perpetuity.
- **Minimum level of vegetation condition and likely ‘viability’ of current or future offsets:** There should be a rule that establishes a minimum level of vegetation condition that can be subject to management actions for the purposes of credit generation. This rule recognises that there is a high risk that management actions will fail to successfully restore the biodiversity value of very low condition (highly degraded) vegetation. There should also be a requirement to consider the current and future potential viability of an offset, prior to identifying that offset as appropriate. For example, it may not be appropriate for an offset to be located within an area that is currently or likely in the future, to be entirely surrounded by urban development because this vegetation may not be viable in the long-term.
- **Stricter monitoring requirements for threatened species and ecological communities:** It may be appropriate to require more comprehensive monitoring requirements for offsetting impacts on threatened species and ecological communities. Again, this reduces the risk that offsetting will fail to achieve biodiversity outcomes and enables offsetting costs to more accurately reflect conservation status.
- **Ensuring potential offset areas are not degraded prior to submitting offset proposals:** There must be a system in place to ensure that potential offset providers are not able to degrade land prior to gaining credits for the implementation of management

⁴ Briggs, S.V. (2001) Linking ecological scales and institutional frameworks for landscape rehabilitation *Ecological Management and Restoration* 2, 28-33.

actions on that land. Potential offset areas may need to be identified and their condition periodically audited well in advance of the finalization of conservation agreements.

Additional questions

Our specific questions arising from the Working Paper are set out below.

The Working Paper introduces some new concepts which are not clearly defined. For instance, it is not clear what the legal status of the ‘rule book’ will be; whether the “Biodiversity Investment Guide” will contain only financial detail; how a “biodiversity improvement score” will be calculated and verified; and how “cost effectiveness per credit generated” will actually be calculated, and how environmental outcomes are considered in the context of cost effectiveness.

Page 3, para 3 – is the “biodiversity forecasting tool” the same as the assessment tool, or a part thereof?

Page 4, Part 2.2 – DEC refers to compensatory habitat used to offset the Karuah and Bangor Bypasses. How were the figures of 89 ha and 35ha (respectively) of necessary offset area arrived at? Has there been evaluation of the offsets sites since? What are the arrangements for ongoing management?

Page 5, para 3 – the Working Paper lists activities that may constitute conservation management actions including “controlling exotic plant species.” An important principle of offsets is that of “additionality.” It must be clear that such a management action is in addition to what would already be required by rural lands or noxious weeds legislation.

Page 5, Part 3.2 – will there be a Code of Practice for “conservation brokers”? Will the scheme differentiate between not-for profit brokers and private sector entrepreneurs?

Page 6, para 3 – will there be public consultation on “performance standards”? What will be the consequences of failing to meet these?

Page 7, Scheme Manager, dot point 1 – will DEC, as scheme manager, report to the public as well as the Minister on offsets, impacts, outcomes and funds received and spent?

Dot point 6 – what are the resources for enforcement?

Dot point 7 – will the credit register be public?

Page 7, Conservation Broker, dot point 5 – regarding the monitoring of outcomes, it is not clear if this includes financial and environmental outcomes. As noted, it is stated that outcomes will be assessed “on a cost recovery basis”. Will there be an assessment of outcomes on a biodiversity conservation/recovery basis? How will these two outcomes be integrated/balanced?

Dot point 9 – the Working Paper introduces the concept of outcomes of management actions being “subject to ecological risk.” Are contractual obligations to undertake management actions discharged if the actions do not achieve desired outcomes? Does the

‘ecological risk’ factor mean failure to achieve a maintenance or improvement of biodiversity on an offset site is not a breach of contract? What are the enforcement options?

Page 8, Part 3.3 – will there be a specific list of “compatible land uses”? It is important that these, in practice, do not become exemptions akin to RAMAs under the native vegetation regulatory regime.

Page 9, Part 3.6 – As noted, the EDO is concerned as to the legal status of the “rule book”? Is it a Code of Practice or regulatory? What will the consequence be of acting inconsistently with the rule book?

2. Biodiversity Assessment Tool

The Working Paper identifies that the biodiversity assessment tool will be based on the BioMetric and threatened species tools developed for the property vegetation planning process under the *Native Vegetation Conservation Act 2003* (page 10). We have a number of comments in relation to these tools and their application as set out below.

- The EDO is concerned about the **expertise required to run the assessment tool**. The Working Paper proposes that developers will undertake the assessment (page 6, para 1). Property vegetation planning under the native vegetation regime, which utilizes a complex assessment tool similar to what is proposed for the biobanking scheme, has required extensive training of Catchment Management Authority (CMA) staff to accurately run the tool on test sites. In this context, the EDO has serious concerns regarding the capacity of developers to use the tool, and input correct data. There needs to be a legal requirement that the assessment must be done by an independent accredited expert.
- **Testing the ecological efficacy of the assessment tool:** As noted, there is no scientific consensus and there appears to be little real data on the ecological variables that best reflect the biodiversity value of a site. Different biodiversity assessment tools such as BioMetric (NSW), Environmental Services Scheme (NSW) and Habitat Hectares (Victoria), use different ecological variables to determine biodiversity value. There should be ongoing testing based on real data and improvement of the biodiversity assessment tool to ensure: the ecological variables in the tool best reflect the biodiversity value of a site for the widest possible range of species or groups of species (birds, reptiles, mammals, frogs as well as flora); the weightings for each variable are appropriate; the tool adequately accounts for different ecosystem types; and that the tool adequately accounts for threatened species, etc. We are aware of a number of studies based on either real data or expert opinion that are considering the ecological efficacy of biodiversity assessment tools.⁵ The results of these studies should be considered for ongoing improvement to the biodiversity assessment tool.
- **Testing the assumed biodiversity value of management actions:** The BioMetric tool identifies a range of management actions that can be implemented to improve the

⁵ For example, Oliver I, et al. Expert panel assessment of attributes for natural variability benchmarks for biodiversity (submitted to Ecological Applications, March 8, 2006)

ten condition variables comprising Site Value and guidelines for assessing the impacts of management actions on Site Value (BioMetric Operation Manual, Appendix 4).⁶ There appears to be little real data on the biodiversity value of these management actions and the scoring system for predicting the value of actions appears to be coarse (management actions are scored within a range of 0 – 3). There should be ongoing testing (based on real data) of the assumptions underlying the biodiversity value of management actions identified in the BioMetric tool. The results should be used to revise and increase the sensitivity of any guidelines for assessing the impacts of management actions on Site Value.

- **Separate measurements for biodiversity value:** The BioMetric tool recognises three main components of ‘biodiversity value’ – landscape value, regional value and site value – and requires that each of these components are ‘maintained or improved’ for offsetting to be permitted. The biodiversity assessment tool should also ensure that different components of ‘biodiversity value’ are not consolidated into a single measurement and that offsets meet the required score for each different component.
- **Consideration of conservation status:** The threatened species tool must be modified to ensure consideration of conservation status. The higher the conservation status, the higher the offset ratios should be. As noted, for the highest endangered categories (ie, critical), the use of offsets (ie, the approval of any clearing) will be inappropriate.
- **Consideration of population size and significance:** There must be a measure incorporated into the assessment tool that requires consideration of the significance of any threatened species’ populations at a local, regional, and State level. As noted, we would prefer that offsets not apply (for the generation of debits) to known habitat for populations of endangered and vulnerable species of a certain size (appropriate to the species) and/or significance on a regional scale.
- **Scoring impacts from threats not related to clearing:** There must be a method set out for scoring the impact on biodiversity values from threats not related to clearing (for example, noise impacts, drainage of wetlands), as identified in the Working Paper (page 10).
- **The valuation of secondary environmental benefits is unclear:** The Working Paper refers to impacts from threats that are not related to clearing, and suggests that these will be dealt with in the rule book. Infill or drainage of a wetland could have a significant impact on biodiversity and should therefore be properly assessed and factored into the “loss credits” and not dealt with by the rule book. The rule book, unless made regulatory, may in practice be little more than guidelines, and therefore is not sufficient to address potentially serious and complex environmental impacts. Under the native vegetation regime there are separate assessment modules for biodiversity, salinity, soil and water. It was a key concern of the EDO during negotiations on the use of these tools in measuring potential offsets, that trading between values be prohibited. For

⁶ Gibbons et al. (2005) BioMetric Operation Manual Version 1.8 A Terrestrial Biodiversity Assessment Tool for the NSW Property Vegetation Plan Developer, Department of Environment and Conservation, Sydney

example, a salinity benefit cannot be used to justify a biodiversity loss in the process of 'balancing' potential outcomes. The Working Paper does not explain how the secondary benefits will be assessed, and how the results will be factored into the credit quantification process.

Additional questions

Page 10, second last para – refers to an unquantified “percentage” to be “factored into the tool to provide for extra actions if the first set fail”. Will this be backed up by an offset ratio factored into the tool that is strongly weighted in favour of conservation? There is no reference to offset ratios in the Paper.

Page 11, para 4 – what is the difference between the Draft Operational Plan and the rule book? How do they complement each other and the Biodiversity Guide (referred to para 1 p12)?

Page 12, para 2 – as noted above, what is the biodiversity forecasting tool and is this different to the credit assessment tool?

Page 12, dot point 5 – does the “biodiversity improvement score” incorporate an offset ratio loss:gain? Does “cost per credit generated” include environmental cost as well as financial? As noted above, the reference to the value of “secondary environmental benefits” raises questions as to how these are to be assessed, and whether there will be any ‘trading’ between values permitted in the design of an offset. The EDO strongly opposes trading between values.

Page 6, para 1 - regarding developers applying the assessment tool – as noted above, the EDO has concerns about the independence, scientific rigour and corruption-proofing of this process. Will the consultants be accredited? Will assessment results be publicly available or publicly reported? How will DEC verify results? What are the resources to do this?

3. Administration of the Scheme

Monitoring against predicted outcomes and performance targets

The regulatory framework should clearly set out the responsibilities of the scheme manager in terms of requirements for monitoring the effectiveness of management actions in achieving the predicted outcomes/performance targets, including monitoring methods, frequency, and duration. Where outcomes are not being achieved, further management actions must be implemented. A system must be in place to ensure that funding is available to implement additional management actions, particularly where the outcomes of actions are uncertain.

The EDO submits that audit reports (as referred to at Page 14, part 5.4) should be made public.

Auditing the use of the biodiversity assessment tool

The EDO submits that regular and random audits should be undertaken by DEC or an independent auditor as appropriate on the application of the biodiversity assessment tool by assessors to ensure misuse of the tool is minimised.

Additional issues

Page 13, para 2 – the Working Paper states private brokers would not need to follow the same steps as DEC. Will the rule book indicate the process for private brokers? The EDO reiterates our preference for DEC to be the broker during the pilot phases to ensure transparency and accountability.

Page 13, Part 5.2 – discusses the establishment of an Advisory Panel to assist administration and ensure transparency. The EDO strongly supports this proposal. Furthermore, there should be a requirement that the Minister must take Advisory panel advice into account when making relevant decisions.

Page 14, Part 5.3 – will the quarantined payments be in trust funds? Would interest go to funding ongoing management (as per the model advocated by Craig Denisoff)? Would the register be public or subject to commercial in confidence provisions?

4. Project Tasks

The EDO generally supports the tasks outlined in the table on page 15. We seek confirmation that the tool will be released for public comment (Task 3). A further task would be to draft necessary regulations and legislative amendments. The EDO would be happy to provide feedback on proposed amendments.

We welcome the opportunity to participate in the Review Group and Focus groups and comment DEC on their commitment to consultation in this regard.

Should you require any further information, please contact Rachel Walmsley on 02 9262 6989 or rachel.walmsley@edo.org.au.

Yours sincerely,
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