Use of Environmental Offsets Under the *Environment Protection and Biodiversity Conservation Act 1999*

Discussion Paper

August 2007

Australian Government

Department of the Environment and Water Resources

WITHOUT PREJUDICE DRAFT – FOR CONSULTATION PURPOSES ONLY

Introduction

The purpose of this paper is to facilitate the development of a public policy and internal guidance for the application of environmental offsets under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The objectives of this work are to ensure the best environmental outcomes are achieved through the consistent, transparent and equitable application of offsets under the EPBC Act. The approach will achieve this through the establishment of a clear set of principles for the development and assessment of offsets.

The paper does not directly address issues associated with mitigation. In addition the paper does not address the potential for funding to be provided to an independent organisation for an unspecified conservation activity. There are a number of initiatives currently under development by both states and non-government organisations to establish 'conservation banks' to hold funds for future conservation actions. While these 'banks' may support environmental offsets under the EPBC Act they are still in the early stage of development and implementation. Review of 'conservation banking' to ensure that it can meet the requirements of the Act and deliver a good conservation outcome for a matter of NES will be the subject of separate considerations.

The paper is presented in three sections:

Section 1 - background information:
- outlines the need for an offsets policy;
- defines offsets;
- describes offset approaches used by other jurisdictions which may apply to the EPBC Act;
- discusses some of the limitations of existing offset approaches; and
- presents an example of applying offsets under the EPBC Act.

Section 2 – offset principles:
- presents discussion on the key principles to be included in an offsets policy.

Section 1 - Background information

The need for an offsets policy under the EPBC Act

Offsets are an emerging issue in relation to environmental impact assessment in Australia. They are increasingly being required as part of development approvals to compensate for impacts on the environment, and aim to achieve long-term conservation gains while enabling development to proceed.

Applying offsets under the EPBC Act provides a range of opportunities to allow development to proceed while meeting the conservation goals of the Act. For example, recovery of threatened species is a key objective of the Act. However, the ongoing approval of developments without offsets will lead to a continual decline in many species. Offsets provide an important mechanism to facilitate both development and long-term conservation.

There is considerable potential for the use of offsets under the EPBC Act and a formal approach is needed to ensure the future application of offsets:

- is appropriate, consistent, transparent and equitable;
- complements and builds on other conservation activities being undertaken in Australia; and
- complements (as far as possible) the various approaches of the states and territories.

Offsets offer an opportunity to integrate regulatory decisions made under the EPBC Act with other 'non-regulatory' conservation measures. For example, offsets could be used to build on Australian, state and territory government policy objectives including conservation activities focussed on encouraging private land owners to maintain the environmental values on their properties (e.g. BushTender in Victoria). Where appropriate, offsets provide an opportunity to direct private investment to achieve similar outcomes as these government funded stewardship programmes.

What are offsets?

In the context of the EPBC Act, offsets are a mechanism available through environmental impact assessment and approvals processes to compensate for the impacts of developments on those matters of national environmental significance protected by the EPBC Act. They are applied through approval conditions and for the purposes of this discussion paper 'offsets' are defined as:

> *actions taken outside of a development site that compensate for the impacts of that development - including direct and indirect impacts*.

It is important to note that offsets do not reduce the actual impacts of a development but may change the net effect of a proposal on the environment because of the reparation or 'environmental gain' achieved through those actions. They should be distinguished from 'mitigation', which refers to the range of actions that can be undertaken to reduce the level of impacts of a development and typically undertaken on-site.

While offsets to date have primarily been applied to threatened species and ecological communities, the approach set out in this paper also applies to offsetting impacts on the values of World Heritage and National Heritage sites or Ramsar listed wetlands.
Offsets come in a variety of forms and can be categorised into direct and indirect offset actions.

Direct offset actions

Direct offsets are aimed at on-ground maintenance and improvement of habitat or landscape values for the relevant protected matter. They may include:

- long-term protection of existing habitat – including the acquisition and inclusion of land in the conservation estate or covenanting arrangements on private land;
- restoration or rehabilitation of existing degraded habitat; or
- re-establishing habitat.

Indirect offset actions

Indirect offsets are the range of other actions that improve knowledge, understanding and management leading to improved conservation outcomes for the relevant protected matter. They may include:

- implementation of recovery plan actions – including surveys;
- contributions to relevant research or education programs;
- removal of threatening processes;
- contributions to appropriate trust funds or banking schemes that can deliver direct offsets through a consolidation of funds and investment in priority areas; or
- on-going management activities such as monitoring, maintenance, preparation and implementation of management plans etc.

Package of actions

When available, direct offsets (e.g. reservation or covenanting of land) are more desirable than indirect offsets (e.g. contribution to research) as they are more likely to lead to long-term conservation outcomes and it is easier to demonstrate a consistent, transparent and equitable relationship between the offset and the impact. However, a package of offsets incorporating direct and indirect actions may also deliver effective results. A package of measures increases the scope of possible conservation outcomes, spreads the risk of offsets failing to deliver, and may provide greater flexibility for proponents to successfully deliver a sustainable outcome.

Offsets should be real

It is important to ensure that offsets deliver conservation outcomes that would not otherwise be achieved. For example, they should not rely on securing habitat that is already protected for conservation purposes.

Case Study - Dingo Dam, Qld

In 2006, the Department determined that construction of the Dingo Dam in Queensland was a controlled action as the proposal would result in the inundation of 6ha native vegetation containing 40 plants of a daisy species listed as endangered under the EPBC Act.

The proponent proposed an offset of a conservation covenant over 10ha of lowland riverine scrub habitat on nearby private land which contained approximately 80 daisy plants of the same species. The Department advised the proponent that the proposed offsets would not be acceptable since the lowland riverine scrub habitat to be covenanted was already protected from clearing under stringent state legislation.

The final agreed offset was the placement of a conservation covenant over 15 ha of private land containing 70 daisies which had no existing legal protection from clearing and an ongoing commitment to manage the area to encourage the successful recruitment of the species.

Offsetting in the states and territories

A number of states have developed public policies on offsets (e.g. WA) and others are beginning to enshrine offset schemes into legislation (e.g. Victoria and NSW). A summary of state and territory approaches to offsets is presented at Appendix A.

An important element to the various approaches to offsetting by the states and territories is the overarching goals of their offset policies. While expressed in a range of different ways, there are essentially three conservation goals that are applied nationally in relation to offsets – 'no net loss', 'net gain' and 'maintain or improve' which are outlined below. These goals establish the desired outcomes for impact assessment and determine the role of offsetting in this process.

No Net Loss
No net loss aims to ensure the current extent and quality of the environment (or elements of the environment) are maintained. This principle does not incorporate the concept of improving or rehabilitating the environment over time.

Net Gain
Net gain is a principle which seeks to ensure an improvement in the extent and quality of the environment (or elements of the environment) over time. For example, the Victorian offsetting policy seeks to achieve net gain, which is defined as, 'a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation'.

Net gain requires greater magnitudes of offsets in the attempt to improve the environment while still allowing certain levels of development.

Maintain or improve
A combination of the previous two principles is the 'maintain or improve' goal for offsetting. NSW and Western Australia apply this goal which establishes no net loss as the minimum standard but also includes the scope to focus on environmental gains.

This goal provides flexibility in applying offsets. At a minimum it aims to ensure the extent and quality of the environment is maintained over time, while also incorporating the scope to achieve broader conservation gains (e.g. the recovery of species and the habitat that supports them).

Offsetting under the EPBC Act

The EPBC Act outlines a clear framework for the use of offsets and defines the circumstances in which they can be applied and the goal to be achieved in applying them.

Legal framework for offsets

Offsets, as an approval condition, are subject to the same legislative requirements that apply to all approval conditions under Part 9 of the EPBC Act. These legislative requirements are established in a number of parts of the Act (Sections 134 and 136 in particular) and are illustrated in Figure 1 (Pg 8).

Section 136 sets out the general considerations that the Australian Government Minister for the Environment (the Minister) must take into account when deciding whether or not to approve an action. These considerations specifically include the need for the Minister to take into account the principles of Ecologically Sustainable Development (ESD). Section 3A details the principles of ESD. Those principles of particular relevance to the referrals, assessments and approvals process are:

- the concept of 'inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the ***environment is maintained or enhanced*** for the benefit of future generations'; and
- that the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making. This point provides clear links between the recovery of threatened species and the decision-making framework.

Section 134 outlines the scope of approval conditions that can be made by the Minister. Conditions can only be made that are necessary or convenient to protect a matter of national environmental significance or the environment from actions involving the Commonwealth, or to repair or mitigate damage to a matter of national environmental significance or the environment from actions involving the Commonwealth (whether or not the damage has been caused by the action).

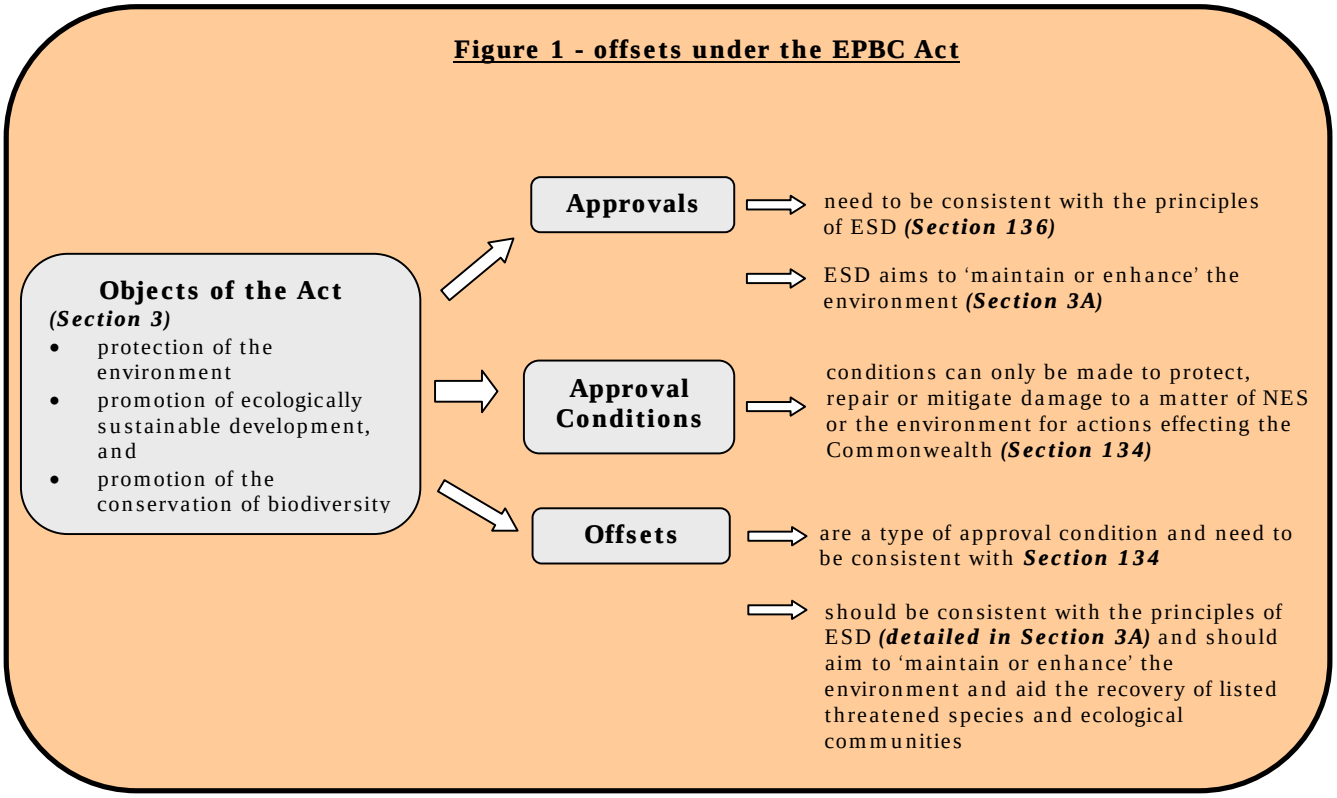
Offsets are therefore a legitimate option under the EPBC Act when they:

- are necessary or convenient to protect or repair impacts to a protected matter – i.e. a matter of national environmental significance or the environment from actions involving the Commonwealth;
- relate specifically to the matter being impacted; and
- seek to ensure that the health, diversity and productivity of the environment is maintained or enhanced (being consistent with the principles of ESD).

It is important to note that offsets are not applicable to all approvals. Offsets should not be required where the impacts of a development are considered to be minor in nature or could reasonably be mitigated. In some circumstances suitable offsets may also not be available to adequately compensate for the impacts. This is an issue that would need to be considered when deciding whether or not to approve an action, including consideration of social and economic issues.

Further discussion of the appropriate use and magnitude of offsets is presented in Section 2 of this paper.

Figure 1 - offsets under the EPBC Act



Amendments to the EPBC Act

The Australian Parliament passed amendments to the EPBC Act on 7 December 2006. The bulk of the amendments commenced on 19 February 2007 and included changes to the scope of approval conditions described in Section 134 of the EPBC Act. Section 134 now allows the Minister to attach a condition to a Part 9 approval which requires specified activities to be undertaken for protecting, or repairing or mitigating damage to, a matter protected under Part 3 of the Act; or, requiring a specified financial contribution to support such activities. The purpose of this amendment is to provide for activities which are not directly related to the taking of an action but which recompense for damage which the action may cause. Under section 134(3A) if conditions imposed under this provision are not reasonably related to the taking of the action, the Minister may not impose them unless the holder of the approval has consented to them.

Recognition of state/territory negotiated environmental offsets

Many proposals which require approval under the EPBC Act also require environmental approvals from state or territory governments before they can proceed. As a consequence, some proponents may need to satisfy the requirements of both state and territory and Australian Government environmental offset policies.

All existing state and territory government policies regarding environmental offsets have the capacity to deliver offsets which will also satisfy the proposed draft policy and thus the

requirements of the EPBC Act. However, approvals under the EPBC ACT are generally required to focus only on matters of national environmental significance which is a narrower scope than most state and territory approvals which aim to protect broader biodiversity values and the whole of the environment. As a consequence, it should not be assumed that an offset which satisfies state and territory requirements will automatically satisfy the requirements of the EPBC Act.

When state and territory governments negotiate offsets which can also satisfy the requirements of the EPBC Act there may be no need for additional environmental offsets as part of the EPBC approval. Any such offsets would be taken into account by the Australian Government when considering the possible need for a proposal to provide an offset in order to satisfy the requirements of the EPBC Act.

It is intended that the proposed policy on the application of environmental offsets under the EPBC Act will help all stakeholders involved in the development of offsets understand the parameters within which environmental offsets are likely to satisfy the requirements of the EPBC Act.

Limitations of offsets

Offsets are not a guarantee in themselves for delivering conservation outcomes. Implementing them without sufficient data, research, information, resources, regulation and commitment may lead to little or no benefits.

Issues that have been identified as key limitations to offsets include:

- the complexity of ecosystems and the difficulty in understanding the ecological function of habitats. For example, understanding the respective roles of two woodland sites as habitat for Carnaby's Black Cockatoo and the possibilities for offsetting one for the other by improved management is complex and subject to high levels of uncertainty;
- the time-lag before offsets become effective. For example, the re-establishment of habitat for the northern quoll may not become effective for a number of years while the impact of a development is immediate;
- equating indirect or consequential impacts with offsets. For example, while the loss of one area of habitat can be equated via a ratio to another area of habitat (although this may involve consideration of a range of complex variables), quantifying the impacts of increased traffic flow or changed water regimes and an appropriate offsets is more difficult; and
- whether protecting existing unprotected habitat can generate compensation for environmental impacts. For example, while one area of Spiny Rice Flower grassland may be conserved and managed as an offset, there can still be an overall loss of individuals and habitat for the species due to the loss at the development site.

Section 2 – Discussion of Offset Principles

A draft offset approach is presented at Section 3. There are however a number of key issues in relation to the principles of offsets that require discussion and resolution in order to formalise an approach for the EPBC Act.

The key issues for discussion in relation to agreement on offset principles are:

1. when are offsets an appropriate mechanism to apply under the EPBC Act?
2. what actions are suitable as offsets?
3. what is the appropriate magnitude of an offset?
4. where should offsets be located?
5. timing of offsets - when should they be delivered and for how long?
6. what should offset approval conditions look like?

1. When are offsets an appropriate mechanism to apply under the EPBC Act?

As outlined in Section 1 of this discussion paper, approval conditions (including offsets) may only be required when they:

- are necessary or convenient to protect or repair impacts to a protected matter – i.e. a matter of national environmental significance (e.g. a particular threatened species or Ramsar wetland) or the environment from actions involving the Commonwealth;
- relate specifically to the matter being impacted; and
- seek to ensure that the health, diversity and productivity of the environment is maintained or enhanced (being consistent with the principles of ESD).

In determining when offsets are 'necessary or convenient', a number of specific issues need to be considered:

a) what is the magnitude of impact from a development that warrants the need for offsets – i.e. impacts that are of sufficient magnitude that compensatory measures are required;
b) how much effort and how many resources should be put into mitigating on-site impacts before offsets are considered as an appropriate course of action; and
c) what is the appropriate course of action if sufficient offsets are not available?

Environmental offsets are not intended to make proposals with unacceptable impacts acceptable. They are simply intended be another option in the environmental impact assessment process to achieve the principles of ESD.

a) Magnitude of impacts

The objective of approval conditions is to ensure that the health, diversity and productivity of the environment is maintained or enhanced over time (as outlined in the Section 1 of this discussion paper). Offsets may therefore be an appropriate mechanism where off-site actions are needed to compensate for the impacts of a development so that the environment is 'maintained or enhanced'. For example, clearing of a portion of the nationally listed Brigalow ecological community may be offset by securing and rehabilitating another area of Brigalow habitat. This would be appropriate where the loss of Brigalow was determined to be 'significant' and on-site mitigation could not sufficiently reduce the magnitude of these impacts to an acceptable level.

b) Balancing mitigation and offsetting

Offsets are generally applied in Australia on the basis that all options to avoid and mitigate on-site impacts have been applied prior to the consideration of off-site actions. This philosophy is designed to ensure on-site impacts to the environment are minimised and that offsetting does not become a mechanism for allowing incremental and unacceptable loss. Consequently, offsets would only be an option when a level of environmental impact remains that cannot be avoided or mitigated.

This approach does not take into account the relative benefits of mitigation and offsetting, and the possibility that resources directed to offsets may deliver more certain and higher quality conservation gains than money spent on mitigation. For example, in some circumstances on-site mitigation may be expensive and deliver uncertain long-term conservation benefits. In these cases, a focus on off-site actions may be more appropriate. They may be more cost effective for proponents and deliver greater conservation outcomes.

In assessing the merits of mitigation and offsets, there needs to be clear information about the level of impacts of the development and the relative benefits to be gained through various actions. Mitigation should only be applied to a development where it can deliver long-term conservation outcomes. For example, the retention of vegetation on a development site should only be considered as an appropriate mitigatory measure where it can be shown that it will provide environmental values in the long-term.

In addition, developments may have off-site impacts that cannot be mitigated by on-site actions. For example, urban development in the vicinity of Cassowary habitat may lead to substantial increases in road traffic through essential habitat – a key threat to the species. No amount of on-site mitigation will reduce the impacts of this threat and offsets may be required to compensate for those impacts.

c) Availability of offsets

In some circumstances, suitable offsets may not be available to adequately compensate for the impacts of a development. This may occur for a variety of reasons such as where the impacts of a development are extremely large. For example, in 2001 the culling of Spectacled Flying Foxes by a large aerial electric grid on a lychee farm in north Queensland, adjacent to the Wet Tropics World Heritage Area was determined to be unacceptable. No amount of offsetting could appropriately compensate for the on-site impacts.

Where sufficient offsets are not available, consideration of the acceptability of the development will need to take into account the level of offsets that are available as well as social and economic issues.

Suggested Approach

A flexible approach should be taken to the design and use of environmental offsets to achieve long-term and certain conservation outcomes which are cost effective for proponents. The Australian Government should not consider any proposal for environmental offsets unless the intended measures to avoid and/or mitigate the anticipated impacts are presented at the same time. If it can be demonstrated that better conservation outcomes would be achieved by the use of an environmental offset rather than measures to avoid and/or mitigate certain impacts, then the Australian Government should be prepared to consider such an approach.

2. What actions are suitable as offsets?

There are various options for delivering offsets – including both direct and indirect actions. Given the complexity of environmental impact assessment, it is not useful to be prescriptive about the type of actions that are appropriate as offsets for particular impacts. Development proposals and their associated impacts will differ, the actions needed to protect various matters will differ, and the opportunities for offsetting impacts on-ground or through other measures will differ.

However, there are a number of guiding principles that can be applied to the development of offset actions. These include:

- direct offsets (e.g. reservation or covenanting of land) are generally more desirable than indirect offsets (e.g. contribution to research) as they are more likely to deliver long-term conservation outcomes and it is easier to demonstrate a consistent, transparent and equitable relationship between the offset and the impact;
- a package of actions is likely to deliver the best long-term conservation benefits (see Section 1 of this paper); and
- offset actions should be focused on delivering the greatest conservation benefit for the relevant protected matter.

Case Study – Tropical Palms Resort, Mission Beach, QLD

In 2005, the Department determined that the proposed development of a resort in Mission Beach, North Queensland, was a controlled action due to the indirect impacts on Southern Cassowary (*Casuarius casuarius johnsonii*) from increased traffic on the two principal access roads into Mission Beach. The Southern Cassowary is listed as endangered under the EPBC Act and as a key value of the Wet Tropics World Heritage Area. Road kill is the major cause of cassowary mortalities recorded in the Mission Beach area.

The proponent, with the assistance of a regional natural resource management body, developed an offsets package targeted towards both research and conservation actions for the Mission Beach Cassowary population which has to be implemented within 2 years of the date of the EPBC approval.

The offsets package included a contract with the. James Cook University to conduct research into traffic impacts on the Southern Cassowary in the Mission Beach area, an action identified in the Recovery Plan for the species, a contract with the local natural resource management body to conduct off-site riparian revegetation using Southern Cassowary food plants, and financial support to the Queensland Parks & Wildlife Service to assist post-Cyclone Larry Southern Cassowary feeding programmes.

In addition, offset proposals which are considered highly likely to achieve their intended outcome within a short time frame are generally preferable to measures which are untested and take a long

time to deliver their potential goals. Determining the suitability of an offset can therefore be assisted by considering:

- the likelihood of the proposed offset measure delivering the intended outcome; and
- the timeframe in which the intended outcome would be achieved.

The value of a proposed offset or the potential risk of a proposed offset not delivering a conservation outcome can be illustrated by a matrix approach. An example of such a matrix is provided at Appendix B.

'Like for like'

The EPBC Act requires offsets to relate directly to the specific protected matter that will be impacted (i.e. matter of national environmental significance or the environment from actions involving the Commonwealth). Within this legal requirement there are various possibilities for targeting offset actions.

'Like for like' is a principle used in a number of offset policies in Australia. It is a concept that requires offset actions to be targeted towards compensating for the specific environmental value or ecological function being impacted by a development. For example, in the case that foraging habitat for the Swift Parrot was to be lost, offset actions would be focussed on protecting, restoring, creating etc similar foraging habitat (i.e. rather than breeding habitat). It also incorporates the concept that environmental values can be described in terms of both quantity and quality, and that offset actions should ensure that both factors are taken into account.

It may not always be desirable to limit offset actions to the specific value or ecological function of the protected matter that is being impacted. In some cases greater conservation gains might be possible by focussing on other elements of the relevant matter. For example, a better outcome might be gained by restoring breeding habitat for a species instead of foraging habitat if breeding habitat was identified as the key limiting factor for that species.

In addition, the concept of 'like for like' may not work well in relation to issues such as the values of World Heritage or Ramsar listed areas. The best outcome might be achieved by developing offsets that relate to the holistic conservation of the relevant World Heritage area but not the specific values that are being impacted.

Case Study – Ballyhoo Canal Estate, SA

In 2005, the Department determined that development of a residential canal estate on the shores of Lake Alexandrina in South Australia was a controlled action. The proposal was likely to have adverse impacts on the Coorong, Lake Alexandrina and Lake Albert Ramsar site and neighbouring saltmarshes which provide habitat for listed migratory birds and potential habitat for the critically endangered Orange-bellied Parrot (OBP).

Key impacts of concern included:

- dredging and maintenance of a 350m long entrance channel out into the Ramsar site;
- the incursion of domestic pets into to the adjacent saltmarsh migratory bird habitat;
- the creation of an environment conducive to supporting pest fish species; and
- increased boat traffic resulting in water pollution and disturbance of fauna in the Ramsar site.

As an offset to the above impacts, the proponent proposed to create a reserve to protect and enhance 20ha of neighbouring saltmarsh habitat. Creation of the reserve would include:

- exclusion of livestock and domestic pets from the area;
- control of weed species and rehabilitation with native plant species;
- transferral of management of the reserve to the local council once the above rehabilitation and protection works were completed; and
- the provision of funds to council to assist with the ongoing maintenance of the reserve.

These measures are expected to result in long term protection of the saltmarshes and a substantial improvement in the quality of habitat in the reserve. They will also benefit the Ramsar site as many of the species which are supported by the saltmarshes are also important components of the Ramsar wetland ecosystem.

Suggested Approach

Offset actions should:

- be developed as a package - with a priority placed on delivering direct offsets;
- deliver conservation outcomes that would not otherwise be achieved;
- be focussed on achieving the greatest long-term conservation gains – wherever possible in the context of 'like for like';
- aim to provide a high level of certainty regarding their intended conservation outcomes; and
- deliver conservation outcomes in the shortest time possible.

3. What is the appropriate magnitude of an offset?

When it has been determined that offsets are required, consideration needs to be given to the appropriate magnitude of the offset package (noting that 'magnitude' relates to both quantity and quality). The guiding principles for determining the appropriate magnitude of offsets have been introduced earlier, and include:

- the magnitude of offsets needs to relate to the scale (extent) of the impacts of the development - including direct, indirect and consequential impacts; and
- offsets should be commensurate (as a minimum) with the intensity of impact of the development and should provide for both maintenance and enhancement of the relevant protected matter. For example, offsets should aim to secure a positive environmental outcome through an increase in the overall habitat available to a threatened species to allow it to recover.

In order to ensure offsets provide a long-term conservation outcome they should also be of a sufficient scale and in an appropriate location. For example, small isolated areas of habitat for a species may not be suitable in the long-term and the focus should be directed to conserving larger more consolidated patches of habitat.

A number of methodologies are used in Australia to determine the magnitude of offsets for specific projects. These vary from more prescriptive, formula based methods (e.g. Victoria) to more flexible, case-by-case considerations (as has been applied under the EPBC Act to date).

Prescriptive methodologies

Prescriptive methods for determining the magnitude of offsets can work well for direct offsetting of impacts on biodiversity (i.e. loss of native vegetation through clearing or development). In these cases it is possible to develop formulae and ratios to determine the relative size of the impact or the extent of the lost habitat and the appropriate magnitude of the required offsets.

Habitat values of both the impact site and the offset site can be compared in terms of quantity and quality. Ratios can then be established to ensure consistency in the level of offsetting required for certain types of vegetation within the overarching goal of the offset policy. For example, Table 1 provides an extract of the Victorian system based in *Victoria's Native Vegetation Management – a framework for action.*

These systems require a strong regulatory basis to ensure consistency and transparency. They can provide greater certainty for developers and ensure direct compensation for impacts on vegetation. However, prescriptive methodologies for determining offsets have a number of constraints;

They:

- are typically complex to develop;
- may lack flexibility – e.g. in the treatment of large versus small scale developments;
- have difficulty considering indirect or consequential impacts (e.g. road kill on Cassowary) and incorporating indirect offsets (e.g. implementation of recovery plan actions);
- require appropriate areas of habitat or potential habitat to be available to developers at the time of approval, or run the risk of delayed delivery of offsets; and
- may impact on market values of land.

Table 1 – example of Victoria's offset framework

Vegetation status	**Offset ratios**	
	For remnant vegetation	***For large old paddock trees***
High quality*****	Net gain – at least 1.5x the calculated loss in habitat hectares****** of the same vegetation type or higher quality	4 other large old trees to be protected and 20 new trees to be recruited

***** the quality of vegetation is determined through a range of criteria including the quantity and quality of the vegetation

****** habitat hectares is a measure of the quantity and quality of vegetation against agreed benchmarks

Case-by-case methodologies

Case-by-case methodologies for determining the magnitude of offsets tend to be more flexible and can take into account the benefits of both direct and indirect offsets. This is the approach that has been used under the EPBC Act to date. However, without an overarching set of decision rules to provide clarity about the desired outcomes or to ensure consistency in the process for developing offsets there is a risk of poor consistency and transparency.

The benefit of case-by-case consideration of offsets within a set of agreed principles is its flexibility. The EPBC Act regulates a broad range of issues and developing offset ratios for all threatened species, ecological communities, World Heritage areas and Ramsar listed areas would be highly resource intensive and would require appropriate areas of land to be available at 'reasonable' costs to the developer. Prescriptive approaches also cannot take into account the effects of indirect or consequential impacts (e.g. road kill of Cassowary) and find it difficult to incorporate the range of indirect offsets that might be suitable (e.g. funding a recovery plan action).

In addition to the criteria identified at the beginning of this section, a number of other considerations may apply for determining the appropriate magnitude of offsets under a case-by-case framework:

- precedents for the previous development of offsets. For example, where a 10:1 ratio of foraging habitat for the Swift parrot has been required for an offset in the past, this would provide a starting point for the development of future offsets in similar cases;
- the approach of the relevant state or territory. It would be effective and efficient to build on or complement the approach of another jurisdiction to deliver both state/territory and EPBC Act outcomes and consistent environmental approvals;
- the level of certainty in the offset providing a conservation gain. In the case that uncertainty exists about the potential conservation success of an offset package (e.g. due to uncertainty in the science), more immediate and higher certainty offsets should be sought. For example, re-establishing habitat may be less likely to succeed as an offset than rehabilitation of degraded habitat. It may be appropriate in this case to require a larger area of to be re-established as habitat; and
- use of strategic conservation guidelines for select regions, species or ecological communities (eg. priority actions identified in recovery plans).

Suggested Approach

The magnitude of offsets should be developed on a case-by-case basis. To ensure transparency, consistency and equity the following should be considered when determining the appropriate magnitude of the offset package:

- the scale and intensity of impacts of the development – including direct, indirect and consequential impacts. As a minimum, offsets should be commensurate with the impacts of the development and where possible should provide for both maintenance and enhancement of the relevant protected matter;
- precedents for the previous development of similar offsets – with a view to delivering consistency;
- the approach of the relevant state or territory – with a view to complementing and/or building on that approach; and
- the level of certainty in the offset providing a conservation gain. In the case that uncertainty exists consider requiring greater offsets and a package of offsets that reduces the risk of failure.

4. Where should the offsets be located?

Consideration needs to be given to the appropriate location of offsets. Offsets should, where possible, be located in the vicinity (e.g. same bioregion or sub-region) of the development site to ensure that one area of importance to a protected matter (e.g. a Ramsar listed area or part of a species' range) does not become severely degraded. This is less relevant for indirect offsets which may not be location based.

However, it may not always be desirable or possible to locate offsets in the vicinity of a development site. In some cases, greater conservation outcomes may be delivered by locating

offsets elsewhere. For example, where habitat has been prioritised for recovery, targeting offsets to these high priority areas may deliver the greatest conservation gains even if they were not in the vicinity of the development.

Consideration of the appropriate location of offsets will need to be made on a case-by-case basis – taking into account the relative long-term conservation benefits of locating them within the vicinity of the development or elsewhere. This assessment should be made using the best available information including recovery plans for threatened species and relevant scientific literature.

Suggested Approach

Direct offsets should be located within the same general area (e.g. bioregion or sub-region) as the development unless better long-term conservation outcomes can be achieved by locating them elsewhere.

5. Timing of offsets - when should they be delivered and for how long?

The timing of implementation and the duration of offsets are important factors in ensuring they deliver long-term conservation outcomes. Given that offsets are often complex to develop and potentially difficult to deliver, it is important that an offset package be well formulated at the time of approval and preferably implemented prior to the commencement of the development. This is likely to maximise the chances of the offset package succeeding.

To ensure that a suitable offset package has been formulated at the time of approval, analysis of possible offset options ideally needs to take place during the assessment process (rather than the approvals process). This allows for full consideration of the costs and benefits of offsets. In some cases it will be clear that offsets will be required early in this process. However, in others the assessment may be well progressed before it is clear that offsets are appropriate. Care needs to be taken to avoid the situation where a proponent is given inappropriate advice (i.e. prior to approval) that their project will be approved on the basis of potential offsets.

Commencing the implementation of offsets prior to the start of a development provides a greater guarantee that the offsets will compensate for the impacts of that development. It ensures offsets are secured prior to the environmental impact occurring, avoids difficult negotiations between the regulator and the proponent that may arise in cases where the proposed offsets cannot be secured, and reduces the time lag that may occur before the offsets deliver a conservation benefit. However, this needs to be balanced with the possibilities of imposing unreasonable delays on a project and causing unnecessary costs where offsets cannot reasonably be developed prior to a development commencing.

In relation to the duration of offsets, they should deliver a long lasting benefit to ensure environmental impacts are adequately compensated over the long-term. As a guide, offsets should compensate for the impact of developments for the period that the impacts occur – which may be in perpetuity. In delivering long lasting outcomes, consideration needs to be given to the security and long-term management of offset sites.

Suggested Approach

Offsets should be delivered in a timely manner and be long lasting. It is preferable for offsets to be delivered prior to the commencement of development and to provide long lasting benefits. Appropriate management of offsets is essential to ensure successful outcomes.

6. What should offset approval conditions look like?

As with all approval conditions, offsets should be enforceable, deliverable, monitored and audited at appropriate intervals.

Case Study – Ivory Towers Resort, Tasmania

In 2005, the Department determined that development of the Ivory Towers Resort in Tasmania was a controlled action as it involved clearing of approximately 14ha of vegetation containing a population of approximately 40 Phascogales listed as vulnerable under the EPBC Act.

The proponent proposed to offset this impact by contributing $80 000 to the Bassingthwaite Phascogale Conservation Trust's Regional Rehabilitation Fund. This money would be used by the trust to assist with their conservation activities in the Pembroke region.

The Department advised the proponent that the above offset would not be acceptable since the contribution to the Regional Rehabilitation Fund provided:

a. no indication of what activities the funds would be spent on;
b. no certainty that the funded activities would directly benefit the impacted species and
c. no timeframe for the use of funds;

Key considerations in developing approval conditions for offsets include:

- identifying the measures of success for the offset package - important to ensure clarity about the purpose of the offset(s) and to provide clear benchmarks about their success or failure; and
- ensuring that the performance of the offsets is monitored and the monitoring results are fed back into the decision making process. This feedback loop will be important to ensure ongoing improvement in the application of offsets under the EPBC Act.

Suggested Approach

In developing offset approval conditions, consideration should be given to:

- the legal construct of the offset conditions to ensure that they can be adequately enforced;
- the measures of success for the offsets;
- the mechanisms for monitoring the offsets; and
- the processes for feeding the monitoring results back into the decision making process.

Background literature

Freehills (2004) *Environmental offsets – legal recommendations and red flags*. www.freehills.com.au/publications_1565.asp

Kate, K; Bishop, J and Bayon, R (2004) *Biodiversity offsets: views, experience and business case*. IUCN The World Conservation Union.

National Framework for the Management and Monitoring of Australia's Native Vegetation http://www.deh.gov.au/land/publications/nvf/index.html

National Market-based Instruments Pilot Program (2005) *Project Final Report: Green offsets for sustainable regional development.*

NSW Government Department of Environment and Conservation (2006) *BioBanking – a biodiversity offsets and banking scheme. Conserving and restoring biodiversity in NSW. Working Paper*.

NSW Government Department of Environment and Conservation (2006) *BioBanking – an investigation of market-based instruments to secure long-term biodiversity objectives. Background Paper*.

NSW Government (2002) *Green offsets for sustainable development – concept paper.*

Parkes, D; Newell, G and Cheal D (2003) *Assessing the quality of native vegetation: the 'habitat hectares' approach*. Ecological Management and Restoration: **4** – supplement February.

Victorian Government Department of Sustainability and the Environment (2006) *Bush Broker – native vegetation credit registration and trading. Information Paper*.

Victorian Government Department of Sustainability and the Environment (2006) *Native vegetation offsets – practice note*.

Victorian Government (2002) *Victoria's Native Vegetation Management – A Framework for Action.*

WBM Oceanics Australia (2005) *Environmental Offsets – EPBC Act*. Report prepared for DEH.

Western Australian EPA (2006) *Environmental Offsets – Position Statement No. 9*.

Appendix A – State and territory offset policies

The majority of states and territories in Australia have developed, or are developing policies in relation to offsets. A summary of the key elements of the policies in each of the states and territories is presented below.

State	Policy / Approach
ACT	No current offsets policy.
NSW	BioBanking – a biodiversity offsets and banking scheme: • currently before the NSW Parliament in the form of the *Threatened Species Conservation Amendment (Biodiversity Banking) Bill 2006* • provides a systematic and quantitative approach for offsetting the impacts of development to achieve an 'improve or maintain' outcome for biodiversity values • involves developers purchasing offset (or biodiversity) credits produced by offset bankers
NT	No current offsets policy.
QLD	In the early stages of developing a whole-of-government approach to offsets. The process is being jointly coordinated by the QLD EPA and the Premier's Department.
SA	The *Native Vegetation Act 1991*: • requires offsets to be made in relation to land clearing permits • in order to receive a permit, contributions must be made to a Native Vegetation Fund to offset the environmental impact of the action by funding native revegetation within the same region
TAS	Draft offsets policy for the Department of Primary Industry and Water: • goal of the policy is likely to be - ensure the environment is 'as well-off or better off' after a development is approved • offsets are likely to be based on broad principles rather than prescriptive, quantitative approaches
VIC	*Native Vegetation Management – a framework for action*: • establishes 'net gain' as the primary goal for native vegetation management in Victoria and incorporates the principle of offsetting as an option to achieve that goal. 'Net gain' is defined as, 'a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation' • offsets are based on ratios that relate to the quantity and quality (habitat hectares) of the vegetation type to be cleared • applied in part through the BushBroker scheme which provides for the registration and trading of native vegetation credits
WA	WA EPA Environmental Offsets – Position Statement No. 9: • establishes the WA EPA's policy on offsets focussing on the goal of achieving a 'net environmental benefit'

Appendix B : Offsets Matrix

The certainty/outcome matrix below is designed to assist in the development and consideration of environmental offset proposals. Review of the key characteristics of an offsets proposal against the matrix can provide an indication of the probable conservation outcome and if there is an appropriate balance of high and low risk actions proposed.

	IMMEDIATE OUTCOME (less than 12 months)	**MEDIUM TERM OUTCOME** (within 12 months to two years)	**LONG TERM OUTCOMES** (greater than 2 years)
HIGH LEVEL OF CERTAINTY - technique used regularly with effective results - good quality scientific data is available on the key conservation needs of the matter of NES	- inclusion of existing high quality habitat in a secure reserve tenure - funding immediate on-ground conservation activities eg. stabilising historic fabric/structure, fencing to exclude stock	- covenanting of private land in perpetuity with appropriate ongoing management	
MEDIUM LEVEL OF CERTAINTY - approach has been successfully used previously in relation to this or highly similar matter of NES	- ongoing management – including development and implementation of management plans - construction of fauna crossing/bridge (with successful precedent for relevant species)	- rehabilitation of habitat - targeted survey - removal of threatening process - translocation where species is known to respond positively to translocation - funding for the long-term on-ground conservation management	- funding of research proposals - informational programs - variation of flow regimes in Ramsar area to improve ecology of the site. - creation of artificial wetland to improve water quality downstream - delayed inclusion of rehabilitated development site in a secure reserve tenure (eg. Minesite)
LOW LEVEL OF CERTAINTY - new or untested on-ground conservation activity - limited scientific data on the matter of NES is available	- construction of fauna crossing/bridge (without successful precedent for relevant species)	- translocation of species without precedent	- creation of habitat without precedent - inclusion of existing low quality habitat in a temporary covenanted area - translocation of ecological communities - contribution to banking schemes to undertake future conservation actions - educational programs