

Regulatory Impact Statement

Proposed Threatened Species Conservation (Biodiversity Banking) Regulation 2007

Department of **Environment & Climate Change** NSW



Submissions

DECC welcomes written comments on the draft Threatened Species Conservation (Biodiversity Banking) Regulation 2007 and the Regulatory Impact Statement. The closing date for submissions is **Friday 1 February 2008**. Send your submission to:

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This Regulatory Impact Statement is available on the DECC website at www.environment.nsw.gov.au or from Environment Line, telephone 131 555. It should be read in conjunction with the Threatened Species Conservation (Biodiversity Banking) Regulation 2007 (when available on the DECC website).

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Executive summary

The Biodiversity Banking and Offsets Scheme (BioBanking) is established by Part 7A of the *Threatened Species Conservation Act 1995* (TSC Act). The proposed Threatened Species Conservation (Biodiversity Banking) Regulation 2007 (the BioBanking Regulation) establishes specific aspects of the scheme framework which are important for its smooth operation.

The conservation of our endangered animals, plants and ecosystems is one of the greatest environmental challenges facing Australia today. Habitat degradation and loss is a key threat to animals, plants and ecosystems and has resulted in significant species extinction. Innovative approaches are needed to tackle the challenge of balancing development to provide the community with new housing, jobs and amenities while also conserving biodiversity for the future.

The Biodiversity Banking and Offsets Scheme (BioBanking) is a market-based scheme which has been developed by the Department of Environment and Climate Change (DECC) to help conserve biodiversity, and address the loss of biodiversity values and threatened species when development occurs. BioBanking aims to increase the extent to which offsets are used to counterbalance the impact of development on biodiversity values. It also aims to encourage developers to avoid areas with high biodiversity value, while providing incentives for landowners to protect and secure these areas. The scheme provides a transparent, consistent and robust framework for the assessment of biodiversity values and for the long-term management of biodiversity.

'Biodiversity credits' are created by landowners committing to enhance and protect biodiversity values on their land through a biobanking agreement. These credits can then be sold, generating funds for the management of the site. Developers can buy these credits and use them to counterbalance (offset) the impacts on biodiversity values that are likely to occur as a result of development. The credits can also be purchased by those seeking to secure conservation outcomes, including philanthropic organisations and government.

BioBanking is a voluntary scheme that developers can use to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for developers to the current threatened species assessment of significance process under the *Environmental Planning and Assessment Act 1997*, enabling urban development to proceed more efficiently in NSW.

Developers are required to run the BioBanking Assessment Methodology in order to participate in the scheme, and must obtain a biobanking statement to determine:

- what impacts the development will have on biodiversity values and whether the development can meet the improve or maintain test
- the number and type of credits which will need to be retired in order to offset the impacts to reach the improve or maintain result.

The broad objectives of the BioBanking Regulation are: to increase the administrative consistency, efficiency and transparency of the BioBanking Scheme; and to provide a mechanism for recovering some of the costs associated with running the scheme.

The regulation sets out rules addressing, amongst other things:

- minimum review requirements for the assessment methodology
- land which is not suitable to become a biobank site

- persons who may not be suitable to establish a biobank site (the 'fit and proper' person test)
- operation of the BioBanking Trust Fund
- requirements regarding payment into the BioBanking Trust Fund upon a biobank site owner selling their credits
- payment of fees for various stages of participation in the scheme.

The BioBanking Assessment Methodology provides the basis for assessing biodiversity values, including the number and type of credits needed to offset impacts from development. It is used for both biobanking statements and biobanking agreements. The methodology must be reviewed two years after its first gazettal and at least once every five years thereafter to ensure that it takes into account the latest relevant scientific findings and remains accurate and up to date.

The rules in the regulation regarding land that is not suitable as a biobank site help ensure that biobank sites are not established where conservation management is already legally required and funded such that there is not likely to be significant additional conservation gain from establishing a biobank site. Ensuring the additionality of conservation work at biobank sites is necessary for biobank sites to provide full offsets for the impacts of developments.

The fit and proper person test aims to prevent those with poor environmental records from establishing biobank sites. This provision provides a positive way to facilitate good management of biobank sites, complementing the broader compliance assurance framework for the scheme.

The BioBanking Trust Fund is an important component of the scheme framework established by the TSC Act. Funds generated by credit sales are invested in the Fund on behalf of biobank site owners. These funds plus investment earnings are used to make payments to the biobank site owner to help cover the cost of managing the site. The regulation provides rules for the operation of the Fund, and specifies a method for calculation of payments to be deposited on the first sale of credits to provide capital for future payments to the biobank site owner.

Fees for participation in the scheme are proposed in order to provide substantial recovery of the costs of operating the scheme. These will help ensure that the scheme is well resourced and able to be administered effectively.

1. Introduction to the BioBanking Regulation

1.1 The BioBanking Regulation

The legislative framework for the Biodiversity Banking and Offsets Scheme (BioBanking; the scheme) was incorporated into Part 7A of the *Threatened Species Conservation Act 1995* (TSC Act) in December 2006. The scheme is proposed to commence in the first half of 2008.

The proposed Threatened Species Conservation (Biodiversity Banking) Regulation 2007 (the regulation) establishes specific aspects of the scheme's framework important for its smooth operation. For example, the regulation defines the types of land that may not be established as biobank sites and sets key rules regarding the operation of the BioBanking Trust Fund (the Fund). It also establishes fees, which will be charged to scheme participants for administration of the scheme.

The BioBanking Assessment Methodology (the methodology) provides a set of rules for measuring the offset requirements of development sites and the improvement in biodiversity values expected from conservation management by landowners at biobank sites. The methodology will be made by the Minister for Climate Change, Environment and Water through an order published in the Gazette.

The TSC Act requires a review of the scheme to be completed within three years of its commencement. This review will consider whether any amendments are needed both to the TSC Act and the regulation with respect to the scheme.

1.2 Objectives of the proposed regulation

The two broad objectives of the regulation are:

- to increase the administrative consistency, efficiency and transparency of the scheme
- to provide a mechanism for recovering costs associated with running the scheme.

1.3 Purpose and structure of the regulatory impact statement

This regulatory impact statement (RIS) considers the rationale for, and impacts of, the provisions of the regulation.

The *Subordinate Legislation Act 1989* aims to ensure that any new regulations have been fully considered before implementation. The Act requires assessment of the costs and benefits of a regulatory proposal to the community, industry and government, and alternatives that have been considered.

This process helps to ensure that the regulation is the best way of meeting the objectives proposed.

A regulatory impact statement must include:

- a statement of the objectives and the reasons for them
- identification of any alternative options by which those objectives could be achieved (whether wholly or substantially)
- assessment of the costs and benefits of the proposed statutory rule, including the costs and benefits relating to resource allocation, administration and compliance
- assessment of the costs and benefits of each alternative option to the making of the statutory rule (including the option of not proceeding with any action),

including the costs and benefits relating to resource allocation, administration and compliance

- assessment of which of the alternative options involves the greatest net benefit or the least net cost to the community
- a statement of the consultation program to be undertaken.

Where possible, quantification of costs and benefits should be attempted. Where quantification is not possible, the anticipated impacts of the proposed regulation and the alternative options should be described to facilitate a clear comparison of costs and benefits.

The structure of the remainder of the RIS is as follows:

- Section 2 provides an introduction to the Biodiversity Banking and Offsets Scheme
- Section 3 sets out the role of the BioBanking Regulation in the context of the broader legal framework for BioBanking
- Section 4 analyses the proposed regulatory rules, including their objectives and impacts
- Section 5 provides a conclusion.

1.4 Consultation

The BioBanking Regulation and RIS, together with the BioBanking Assessment Methodology, will be released for public comment in November 2007. Copies of the draft regulation, RIS and methodology will be provided to key industry and environment organisations, members of the Ministerial Reference Group, local councils and key NSW Government agencies affected by the proposals. These documents will also be available on the DECC website.

A notice calling for submissions from the public will be published in the *NSW Government Gazette* and *The Sydney Morning Herald*. DECC welcomes submissions from all interested parties and will consider carefully all the matters raised and make any necessary amendments to the regulation before the new regulation is gazetted in 2008.

2. Introduction to the Biodiversity Banking and Offsets Scheme

The Biodiversity Banking and Offsets Scheme (BioBanking) is a market-based scheme which has been developed by DECC to help address the loss of biodiversity values and threatened species associated with development. BioBanking aims to increase the extent to which offsets are used to counterbalance the impact of development on biodiversity values. It also aims to encourage developers to avoid areas with high biodiversity values, while providing incentives for landowners to protect and secure these areas. The scheme provides a transparent, consistent and robust framework for the assessment of biodiversity values and for the long-term management of biodiversity offsets.

Biobanking enables biodiversity credits to be generated by landowners who commit to enhancing and protecting biodiversity values on their land through a biobanking agreement. These credits can then be sold, generating funds for the management of the site. Developers can buy these credits and use them to counterbalance (offset) the impacts on biodiversity values that are likely to occur as a result of development.

The credits can also be purchased by those seeking to secure conservation outcomes, including philanthropic organisations and government.

Developers can voluntarily use BioBanking to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for developers to the current threatened species assessment of significance process, enabling urban development to proceed more efficiently in NSW.

Developers are required to run the BioBanking Assessment Methodology in order to participate in the scheme, and must obtain a biobanking statement to determine:

- what impacts the development will have on biodiversity values and whether the development can meet the improve or maintain test
- the number and type of credits that will be required to be retired in order to offset the impacts to reach the improve or maintain result.

2.1 Reasons for establishing BioBanking

Human settlement and population growth since 1788 have both had a significant effect on the natural environment of NSW. Over 1,000 species, populations and communities of native flora and fauna are now considered either endangered or vulnerable, and 75 species have become extinct (DEC 2006, section 6.3).

Pressure on our native flora and fauna is expected to continue. In Sydney, for example, a population increase of 1.1 million is predicted by 2031 (Department of Planning 2005). This population growth will lead to new demand for houses and amenities. The Metro Strategy estimates that approximately 640,000 new homes will be needed in the next 25 years.

Biodiversity loss is of concern given the broad social and economic benefits from the conservation of native flora and fauna. In the Australia State of the Environment 2001 Report, the committee identified six ways in which biodiversity conservation provides important benefits:

- Direct use – biodiversity provides materials for construction (such as timber) and consumption (such as medicine).
- Indirect use – biodiversity is very important in terms of providing ecosystem services (such as carbon sequestration, minimising disease caused by pests, reducing salinity and exotic invasion).
- Aesthetic value – the beauty of species and landscapes is enjoyed by large sections of the population.
- Scientific and educational value – there are potential future benefits from researching the use of biodiversity (such as medicines).
- Intrinsic, spiritual and ethical value – biodiversity is valuable in itself and in its cultural significance for Indigenous peoples.
- Future/option value – the potential future use of the biodiversity at a particular site (such as genetic variation within a species to decrease the risk of extinction).

A key strategy of the NSW Government to address the decline in native habitat is the provision of assessment and approval processes for development and other activities that could impact adversely on biodiversity values. In rural NSW, assessment and approval of development and land clearing is conducted through frameworks established under the *Native Vegetation Act 2003*. In urban NSW, the key legislative framework is provided by the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Under the requirements of the EP&A Act, all urban development applications, except those dealt with under Part 3A, include an 'assessment of significance' which examines whether the development is likely to significantly affect threatened species, populations, their habitats or endangered ecological communities. If the development is likely to have a significant effect, a more in-depth Species Impact Statement must be prepared and either the Director General of DECC must give concurrence to the development or the Minister for Climate Change, Environment and Water must be consulted prior to the application being determined by the consent authority. The Part 3A approval process also requires impacts on threatened species and biodiversity to be considered and assessed.

Typically, the scope of a development is negotiated between the developer and the consent authority so that the impacts on threatened species are reduced to an acceptable level, and a Species Impact Statement is therefore not required. From 1995 until 2002, only 212 development applications out of approximately 700,000 required a Species Impact Statement. Out of the 212 developments requiring a Species Impact Statement between 1995 and 2002, only five were refused and three of these were ultimately approved with changes (NSW Legislative Assembly 5 June 2002). Overall, the assessment and decision-making processes regarding the impacts of proposed developments on biodiversity are successful at *reducing* the impacts of development on biodiversity but do not manage to avoid a steady decline in levels of native flora and fauna, and negotiations can take considerable time.

Where a proposed development has an impact on biodiversity that cannot be avoided, negotiating biodiversity offsets as a condition of consent is a commonly used mechanism to compensate for the loss of biodiversity. For example, in the 2006/07 financial year, 14 Part 3A approved developments required a biodiversity offset to be provided.

Where offsets are used in NSW, they are mostly determined on a case-by-case basis. Under the current system, biodiversity offsets:

- are not necessarily equivalent to the losses sustained at development sites and therefore do not necessarily maintain current levels of biodiversity
- do not generally impose conditions relating to ongoing maintenance of the offset site
- do not generally preclude future development of the offset site
- are sometimes negotiated through a lengthy and costly process resulting in delays in the development approval process.

The following examples demonstrate the time-consuming nature of determining offsets under current processes, despite the goodwill and cooperation of involved parties. With a clear and transparent framework for biodiversity offsets in NSW provided by BioBanking it is considered that offset decisions will be able to be made more quickly.

Example 1: Wallarah Peninsula

In the late 1990s, a rezoning of the North Wallarah Peninsula was started to allow development of the land for residential purposes. As part of the rezoning, sections of the peninsula were set aside for conservation. The rezoning negotiations took three years and the agreed land use outcomes in the statutory masterplan took another two years.

Example 2: Nowra–Nerriga Main Road 92 upgrade

In 2005 an upgrade to Main Road 92 from Nowra to Nerriga was approved following extensive environmental impact assessment. The originally proposed road upgrade was intended to deviate from the existing road alignment by up to 500 metres, and was to pass through Morton National Park, an area of very high conservation value, with significant impact on native animals. Negotiations regarding the path of the proposed road and appropriate offsets took place over four years, involving the former Department of Environment and Conservation, the NSW Roads and Traffic Authority, the Commonwealth Department of Transport and Regional Services and Shoalhaven City Council.

While there have regularly been good outcomes from offsetting processes, there have also been instances where the outcome for the environment may have been improved with a consistent and transparent set of science-based rules for determining offsets which are able to maintain or improve biodiversity values (see the case study below).

Case study: Edmondson Park Urban Release Area

Edmondson Park (approximately 800 hectares) is within the South West Growth Centre, and was identified as an area for urban investigation as a response to continuing demand for housing land on the outskirts of Sydney.

An investigation of the site found that there were significant areas of high ecological value that should be conserved, as well as areas of moderate ecological value that were suitable for restoration as connecting corridors to protect biodiversity in the area.

Due to high land costs in metropolitan Sydney, there was a push to maximise the amount of land available for development, leading to difficulties in achieving an acceptable outcome that balanced both economic and environmental objectives.

At the time there was no science-based tool to determine the offset required, and a political decision was made to set aside 118 hectares for conservation, which took approximately two years to finalise. This area was transferred to DECC ownership to manage the area as a regional park and to provide the ongoing resources for this.

Comparison of development costs between current process and BioBanking

Under the TSC Act, developers can choose to use BioBanking instead of the current threatened species process. BioBanking must be cost effective for developers, compared with the current process, for the scheme to be effective and have reasonable levels of participation from the development industry.

Information verified by the development industry (though the BioBanking Ministerial Reference Group) on the current costs for developments requiring threatened species assessment in comparison with BioBanking shows:

- Threatened species survey and assessment can cost around \$80,000 for sites with moderately complex threatened species issues. Under BioBanking, survey and assessment costs will be around \$30,000.
- The process including survey, negotiation and approval time, often takes two years, and can be longer with more complex sites. It is estimated that BioBanking will take 6 months on average once the scheme is established and there is a good supply of credits (including survey, biobanking statement and credit purchase).
- Outcomes for the development industry are currently uncertain, adding significantly to project risk. Even with appropriately zoned land, additional assessments and negotiations about threatened species can either considerably extend the timeframes or reduce the overall lot yield (affecting housing affordability). By applying the BioBanking Assessment Methodology before buying land or in determining project feasibility, developers will be able to understand the biodiversity requirements up front.
- Current negotiations often focus on avoiding small unviable remnants of native vegetation. These areas are then retained adjoining the development, reducing lot yield and without firm management arrangements, leaving the land subject to further degradation from surrounding urban land use. This has a high impact on project feasibility and provides little benefit for biodiversity conservation.
- Sourcing biodiversity offsets under the current framework is often difficult. Sites with the same ecological values must be found. Landowners are reluctant to sell just part of their property if only part of the property is needed to offset the project. The majority of offsets under the current framework tend to be from land already owned by developers. Developers can be required to manage the offset land (small areas can cost \$50,000 per year to manage). Alternatively, the land may be transferred and reserved under the *National Parks and Wildlife Act 1974* or transferred to the local council. Under BioBanking, the purchase of credits enables developers to transfer responsibility to landowners who have agreed to manage their land for conservation. BioBanking also provides flexibility in the location of offsets based on ecological criteria. Offsets can be strategically located to achieve better outcomes for biodiversity conservation at lower cost.
- Where an offset under the current system cannot be found after considerable effort and time, other mitigation measures such as the translocation of threatened species are used. Translocation is costly and has a high risk of failure. Contributions to threatened species recovery plans or council park management have also been used to offset impacts on biodiversity.
- BioBanking could reduce the cost per lot for land supply in metropolitan areas significantly due to efficiency in locating offsets and time saved. In some cases, this may be a reduction of up to 10% compared with current costs.

2.2 How will BioBanking operate in practice?

The main components of the Biodiversity Banking and Offsets Scheme established through the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* are:

1. establishing biobank sites on land through a biobanking agreement between landowners and the Minister
2. creating biodiversity credits for management actions that will be carried out in accordance with a biobanking agreement, to improve biodiversity values on biobank sites
3. trading of credits, once they are created and registered
4. providing developers with an alternative path to the assessment of significance / species impact statement processes by allowing them to offset the impact of development on biodiversity values through obtaining and satisfying the requirements of a biobanking statement
5. providing a BioBanking Assessment Methodology to determine the number and class of biodiversity credits:
 - that may be allocated for management actions at biobank sites
 - that must be retired to offset the impact of a development, so that biodiversity values in New South Wales may be improved or maintained
6. establishing public registers, and allowing public access to biobanking agreements, biobanking statements and biodiversity credits. As well as providing the public with confidence that the scheme is being operated transparently, and that appropriate offsets are being put in place, the public register will help facilitate an effective market for biodiversity credits by allowing potential credit buyers to search for credits and contact relevant credit holders.

Establishing biobank sites and creating credits

Under BioBanking, landowners can establish biobank sites to manage land for the conservation of threatened species and the habitats on which they depend. They do so by entering into a biobanking agreement that is attached to the land title. This agreement allows them to create and sell a specified number and type of credits in exchange for committing to ongoing conservation management of the land in perpetuity.

Biodiversity credits are allocated to biobank sites principally on the basis of an expected improvement in biodiversity values by protecting and managing the site. The methodology also ensures that landowners with good quality habitat are rewarded by providing credits for site conditions above the minimum legal standard. A biobank site could therefore be described as a biological savings account. Instead of storing money and earning interest, the biobank conserves and improves the condition and prevalence of ecosystems or species, measured in 'biodiversity credits'.

Biodiversity credits, once registered, are a form of property issued to the owner of the biobank site. Through selling the credits and investing all or part of the sale proceeds in the BioBanking Trust Fund, biobank site owners are able to earn an ongoing income from managing the land for conservation. Credits may be sold any number of times until they have been used ('retired'), after which they are essentially removed from the market-place.

BioBanking for developers – an alternative pathway for biodiversity assessment

Developers can voluntarily use BioBanking as an alternative path to the current threatened species assessment of significance process. Developers electing to use the BioBanking Scheme will be conducting their development in a way which improves or maintains biodiversity values. The improve or maintain standard or test ensures that impacts on areas of high conservation value are avoided and that any other impacts on biodiversity values are fully offset.

Developers who participate in the scheme are required to run the biobanking assessment methodology in order to:

- determine what impacts the development will have on biodiversity values, and whether the impacts can be offset in accordance with the improve or maintain test
- assess the number and type of credits required to be retired in order to offset the impacts of the development, allowing biodiversity values to be improved or maintained.

A biobanking statement can be obtained by setting out the credit requirements and any on-site measures for the proposal. A biobanking statement can be submitted with any Part 4 development application under the *Environmental Planning and Assessment Act 1979*. The statement satisfies the biodiversity assessment and any offset requirements. This alternative mechanism means that the developer is exempted from conducting an assessment of significance or species impact statement for the proposal. The consent authority incorporates a condition in the development consent (if granted) that requires retirement of credits in accordance with the statement, before the work commences.

As well as providing an alternative to the assessment of significance process, the frameworks established under BioBanking may prove useful for Part 3A developments and planning processes such as rezonings. For example, for Part 3A developments, the BioBanking Assessment Methodology may be applied to the proposal and the Minister for Planning may require that biodiversity credits are acquired and retired as a condition of project approval in order to offset the impacts of the project or that a biobanking statement is obtained. For rezonings, the methodology may assist in identifying areas with high conservation value as part of local environmental studies.

Other uses of biodiversity credits

Beyond the use of BioBanking for development, it is anticipated that government and philanthropic organisations may use the scheme to achieve their conservation objectives. Government bodies may purchase and retire biodiversity credits to achieve conservation outcomes over a longer time-period than is possible through many existing grant schemes. Philanthropic organisations may purchase and retire biodiversity credits rather than buying and managing their own high conservation value land.

3. Alternatives to the regulation

As outlined above, the objective of the BioBanking Regulation is to increase the administrative consistency, efficiency and transparency of the BioBanking Scheme. It is also to provide a mechanism for recovering costs associated with running the scheme.

The regulation set out rules addressing, among other things:

- the minimum review requirements of the methodology
- land that is not suitable to become a biobank site
- persons who are not suitable (fit and proper) to establish a biobank site
- the operation of the BioBanking Trust Fund
- payments into the Fund, once a biobank site owner has sold their credits
- the payment of fees for various stages of participation in the scheme.

The RIS proposes and evaluates the options for the regulation, rather than the scheme as a whole. The scheme framework is already established by the TSC Act.

Options considered

Three broad options are assessed here in relation to addressing various administrative details of the scheme. These are:

- Option 1: no regulation
- Option 2: the proposed regulation
- Option 3: an alternative regulation.

Option 1

If the Biodiversity Banking and Offsets Scheme commenced without the proposed regulation in place, a number of key aspects of the scheme's administration would be governed by policy guidelines or case-by-case decision-making by the Minister for Climate Change, Environment and Water or the Director General of DECC.

For example, in the review of the biobanking assessment methodology, the proposed BioBanking Regulation sets out requirements for a review at least every five years and provides for minimum consultation arrangements. An alternative approach would be to leave the timing and approach to reviews of the methodology entirely at the discretion of the Minister. However, to maintain confidence in both the consistency and the strong scientific basis of the methodology, it is important to provide certainty to scheme participants regarding the times at which changes to the methodology may occur and to provide guarantees relating to the transparency of the review process.

In the case of establishing categories of land which may not become biobank sites, the Minister may decide on a case-by-case basis whether to enter into a biobanking agreement in relation to a particular type of land and may choose not to enter into a biobanking agreement where the Minister considers that the broad scheme objective of establishing effective offsets would not be met. This approach would fail to provide adequate guidance to landowners as to whether they are likely to be able to set up a biobank site on their land. It would also lead to unnecessarily complex decision making for the Minister regarding whether to enter into a biobanking agreement.

The Act gives the Director General of DECC the power to charge application fees for biobanking statements and for the transfer of biodiversity credits. Without using the additional powers under the regulation for cost recovery and application fees, resourcing of DECC to administer the scheme would be inadequate.

Without sufficient resourcing, the objectives of the scheme would be jeopardised. The scheme administration would suffer, and the processing of applications for biobanking statements and agreements would be likely to be slow. This would be seriously detrimental to the scheme's objective of providing a streamlined alternative to the assessment of significance and species impact statement processes, and ensuring efficient operation of a biodiversity credit market.

A 'no-regulation' alternative is further described under discussion of each key topic addressed in the regulation.

In general it is considered preferable to provide greater guidance and certainty to scheme participants and set clear boundaries for decision making in relation to key elements of the scheme.

Option 2

The proposed regulation is expected to increase the administrative consistency, efficiency and transparency of the BioBanking Scheme. It also allows the scheme to recover some of its operating costs through fees and ensure the scheme is appropriately resourced into the future.

Option 3

Section 4 of the RIS discusses alternative mechanisms to those proposed in the regulation and the reasons why the proposed regulatory approach was considered preferable.

4. The proposed regulation

4.1 Land inappropriate as a biobank site

The TSC Act does not limit the type of land for which the Minister may enter into a biobanking agreement. However, it does set out that the regulations may exclude any land, or land of a particular class, from being designated as a biobank site by a biobanking agreement [s. 127D(4)].

The rationale for providing for these regulatory powers in the Act was to allow rules to be set regarding land which is not appropriate to become a biobank site.

The Act provides certain safeguards against the establishment of inappropriate biobank sites (ss. 127D and 127F). For example, the Minister for Climate Change, Environment and Water must consult with the Minister/s administering the EP&A Act, Part 2 of the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* before entering into any biobanking agreement. The purpose of these requirements is to help guard against establishing a biobank site which would be inconsistent with other planned uses for the land or government objectives.

Land use and land tenure issues can also have an impact on the effectiveness of the biobank site as an offset. For example, a potential biobank site may be unlikely to obtain good conservation outcomes due to conflicting land uses or contamination of the site. The proposed regulation therefore makes land ineligible to become a biobank site if it is considered unlikely to provide good conservation outcomes based on previous, current or future use of the land or of surrounding land. As indicated in Section 2, biodiversity credits are allocated to biobank sites principally on the basis of biodiversity gains expected from active management of the site. If conservation management is already legally required and funded on the land, there may be little additional conservation gain from establishing a biobank site. The proposed regulation therefore excludes sites where conservation gains from entering into a

biobanking agreement would already be expected to occur based on current land management responsibilities and funding arrangements.

In developing the criteria for land that is unsuitable as a biobank site, consideration was given to providing private landowners equitable access to the scheme and providing a level playing field in the market for the provision of biodiversity credits.

The proposed rules for land that is ineligible as a biobank site

The regulatory provisions that set out the types of land ineligible as biobank sites are summarised and explained below.

In general, privately owned land without public funding for conservation management activities is eligible to participate in the scheme. This includes land zoned for environmental protection and land with a conservation covenant in place. However, the eligibility of any land to become a biobank site is subject to the following exclusions.

1. *Land cannot be established as a biobank site where conservation measures are being funded by, or carried out by, a public authority and the measures are very similar to the management actions which would be taken on under a biobanking agreement.*

This criterion seeks to ensure that biobank sites do not receive credits under BioBanking for conservation benefits which would already be expected due to government investment at the site. It also aims to avoid the situation where a landowner has a competitive advantage in the market for providing biodiversity credits because they are receiving an incentive payment for conservation management.

However, the criterion would not exclude participation of sites where funding arrangements have concluded, or sites where government activities have ceased. This approach strikes a balance between avoiding allocation of credit for benefits already provided through government funding without altogether excluding landowners who have previously participated in government conservation programs from the opportunity to establish biobank sites.

Once a biobank site is established, the decision to award government funding to a biobank site would be at the discretion of the provider of the funds, taking into consideration the existing management responsibilities and funding arrangements of the biobank site and the objectives of the funding program.

2. *Land cannot be established as a biobank site where the landowner or land manager is under a contractual obligation to carry out biodiversity conservation measures very similar to the management actions which would be taken on under a biobanking agreement.*

This criterion does not preclude a site with a conservation covenant in place (including a Nature Conservation Trust covenant, a voluntary conservation agreement under the *National Parks and Wildlife Act 1974*, or a conservation covenant under the *Crown Lands Act 1989*) from becoming a biobank site.

3. *Land cannot be established as a biobank site if the site is already subject to an offset arrangement which requires the land to be managed for biodiversity conservation.*

The regulation excludes the following types of land from becoming a biobank site:

- land being managed for conservation to offset vegetation clearing under the *Native Vegetation Act 2003* (see cl. 9(1)(h) of the *Native Vegetation Regulation 2005*)

- land requiring biodiversity conservation and/or management as a condition of development consent or approval granted under Parts 3A, 4 or 5 of the EP&A Act.
 - land with any other offset arrangement requiring biodiversity conservation, which was entered into to meet requirements imposed by legislation or an instrument made under legislation (for example, to meet a condition imposed by an approval or licence).
4. *Land cannot be established as a biobank site if the site is publicly owned and has a clear conservation purpose defined by or under legislation.*
 5. *Land cannot be established as a biobank site if the site is publicly owned, and biodiversity conservation measures which are very similar to the management actions which would be taken on under a biobanking agreement are required to be carried out by or under legislation.*

Some types of public land which would clearly be excluded under the criteria summarised in points 4 and 5 above are explicitly excluded by the regulation:

- land reserved under Parts 4 or 4A of the *National Parks and Wildlife Act 1974*
- flora reserves and special management zones under the *Forestry Act 1916*
- community land classified as a natural area under the *Local Government Act 1993*.

The criteria are not meant to ‘capture’ land with general obligations such as the obligation to control noxious weeds under the *Noxious Weeds Act 1993*, but rather land that is subject to specific biodiversity conservation responsibilities in addition to those generally required for public land.

The exclusion of public land with an explicit conservation role also supports the principle of competitive neutrality. The opportunity cost of establishing a biobank site on public land with legislative conservation responsibilities is likely to be less than it is on private land. In addition, a publicly owned site may already have funding allocated for biodiversity conservation. These factors could give government an inappropriate competitive advantage in the provision of biodiversity credits under the BioBanking Scheme.

6. *Land may not be established as a biobank site where management to achieve conservation objectives would be prevented due to:*
 - *previous, current or future uses of the site*
 - *inconsistent uses on surrounding land.*

These criteria would exclude land which is seriously contaminated by chemicals, land over which the Roads and Traffic Authority holds rights to build future roads, or land likely to be affected by neighbouring activities.

Administration of the rules for land that may not become biobank sites

The rules that exclude certain types of land from becoming biobank sites will require landowners to provide certain information regarding their land in applications for biobanking agreements. In reviewing an application for a biobanking agreement, the details of contractual or legislative arrangements relating to an applicant’s land may need to be reviewed. The administrators of grants programs (such as the Commonwealth Government’s Environmental Stewardship Program) may need to be consulted to check whether the applicant has made full disclosure regarding any conservation payments they are receiving. Enquiries may also be made with local

councils to determine whether land has already been used as a development / clearing offset.

Assessing whether or not land is eligible to become a biobank site is estimated to take approximately half a day of an EPO9 officer's time, on average. This represents a cost of approximately \$250 per application and an approximate annual cost to DECC in the range \$2,500–13,600¹ depending upon scheme participation. No significant cost to landowners is anticipated.

Options considered

- Option 1: Minister's discretion applied when entering biobanking agreements (no regulation)
- Option 2: establish criteria for land unsuitable as a biobank site (proposed regulation)
- Option 3: rely on credit generation rules provided by the BioBanking Assessment Methodology (alternative regulatory approach)

Option 1

During scheme development, stakeholders indicated a preference for clear rules that establish upfront any cases where it is not appropriate to establish a biobank site.

Unfettered ministerial discretion would provide the most flexibility. However, this approach would be inefficient, requiring unnecessarily complex decision making on a case-by-case basis regarding whether to enter into a biobanking agreement. This would not provide a transparent approach and is the least equitable of the options considered.

Option 2

By establishing clear rules for land that cannot become a biobank site, the regulation reduces the time and cost taken in assessing applications for biobanking agreements. It also decreases the likelihood that landowners will spend time (and potentially money) preparing applications for biobanking agreements which will not be accepted due to issues associated with the past, current or future land use, or land tenure of the site.

The rules for land that cannot be established as a biobank site are also important as they provide a strong mechanism for preventing the establishment of biobank sites that would not provide effective offsets. This is of crucial importance for the scheme's objective of fully offsetting the impacts of developments participating in the scheme.

Option 3

A further option is for credit calculation rules in the BioBanking Assessment Methodology to account for existing conservation responsibilities and/or funding arrangements. The proposed methodology calculates credits for a biobank site based on a set of management actions being carried out under the biobanking agreement.

Under Option 3, the credit allocation to a biobank site would be reduced where the landowner is already legally obliged and/or funded to carry out certain management actions typically required for a biobank site.

This approach was not adopted as it would increase the complexity of the methodology and the costs associated with applying it.

¹ This is one part of the overall assessment for a biobanking agreement application; for more information see section 4.5. The cost range is based on participation scenarios developed by DECC; see Appendix A.

4.2 Fit and proper person test for potential biobank site owners

The TSC Act provides for a fit and proper person test to be included in the regulations for landowners entering into a biobanking agreement. The test is intended to exclude persons who are unsuited to the long-term responsibilities of owning a biobank site. This is in keeping with the broader objective of ensuring that biobank site owners comply with their conservation management obligations.

The proposed regulation establishes a fit and proper person test for biobank site owners similar to the test currently used for environment protection licences under the *Protection of Environment Operations Act 1997*.

The fit and proper person test is designed to allow the Minister not to enter into a biobanking agreement with people who are unlikely to adequately fulfil their conservation management obligations. In determining whether a person is fit and proper, the Minister may consider whether the applicant (whether a person or body corporate) has contravened national parks or other relevant environmental legislation, whether they are capable of carrying out conservation management as required under a biobanking agreement, whether they are honest and of good repute, and whether they have been recently bankrupt or involved in fraud.

The test also allows the Minister to take into account the circumstances and seriousness of past offences and an applicant's broader record of compliance with environmental legislation.

Administration of the rules

Administration of the test will require landowners to disclose whether they have contravened any relevant legislation and to indicate their qualifications to carry out their obligations under the agreement (broad project management skills may suffice if the landowner plans to contract out much of the conservation management work).

DECC internal records may be checked for any contravention of environmental legislation or licence compliance where appropriate. External records may also be searched to determine that a person or body corporate is of good repute – for example, search for criminal history, ASIC search for company directorships and financial capacity, and a bankruptcy search.

The cost of administering the test is approximately 2–3 hours per application by an EPO9 officer. This represents a cost of approximately \$200 per application and an approximate annual cost to DECC in the range of \$2,000–11,500² depending upon scheme participation. No significant cost to participants is anticipated.

Options considered

- Option 1: no test (no regulation)
- Option 2: specify a fit and proper person test in the regulations (proposed regulation)

Option 1

Under the first option, the Minister would still retain the discretion to refuse to enter into an agreement with a person who is not considered fit and proper to own a biobank site. However, without a formal test, there would be reduced clarity and public transparency regarding relevant considerations for the Minister before entering

² This is one part of the overall assessment for a biobanking agreement application; for more information see section 4.5. The cost range is based on participation scenarios developed by DECC; see Appendix A.

into a biobanking agreement. Furthermore, examination of the environmental and financial credentials of applicants may not be carried out with appropriate regularity and consistency. Where uncommitted or unsuited persons do not manage the biobank site properly, the Minister and Department responsible for administering the TSC Act would have to rely on enforcement powers to ensure that biobank site owners comply with their obligations. Enforcement actions, such as Ministerial orders and prosecutions in the Land and Environment Court, are very costly and resource intensive.

Option 2

The fit and proper person test for biobank site owners will ensure that a person's record of compliance with relevant legislation will be considered before they may establish a biobank site. Although there will be a cost to DECC to administer the test, this is expected to be outweighed by costs saved through avoided enforcement activities at biobank sites.

4.3 Review of the BioBanking Assessment Methodology

The TSC Act provides that the Minister may amend, repeal or replace the BioBanking Assessment Methodology by an order published in the Gazette. The Act also indicates that the regulation may set further requirements relating to the process for reviewing, amending or replacing the methodology.

The methodology is pivotal to the successful operation of BioBanking. It has been developed with extensive scientific input and included a peer review of the draft methodology by Professor Hugh Possingham FAA (Director, The Ecology Centre, University of Queensland), Dr Philip Gibbons (Senior Fellow, Fenner School of Environment and Society, Australian National University), and David Parkes (Principal Policy Officer with the Department of Sustainability and Environment, Victoria). While the foundations of the methodology are strong, it is vital that they are reviewed to keep it accurate and appropriate with changes in scientific knowledge. Without updating the methodology to take into account the most current state of knowledge on conservation, the effectiveness of offset requirements may not be optimised.

The proposed regulation would require the Minister to order a review of the methodology after two years of its first gazettal and at least once every five years thereafter.

The Director General of DECC will be required to publish a notice of these reviews in a newspaper circulating generally throughout the State, along with a notice on the DECC website. The notice will invite the public to make written submissions on the methodology and will allow at least 30 days for submissions to be made.

The five-year review is likely to be concerned with major changes to the methodology such as changes to the weightings of various components in the credit calculation.

Changes to the databases which are used in the course of applying the methodology (e.g. the Threatened Species Database) will be made on an ongoing basis and notified on the DECC website.

It is estimated that the costs of reviewing the methodology will be the salary of one EPO11 officer and one EPO9 officer for six months once every five years after the first two-year review of the methodology. This represents a cost of approximately \$100,000 for the two-year review and \$100,000 every five years after that. Additional costs of reviewing the methodology include advertisements calling for submissions (estimated at \$2,000) and updating the Credit Calculator and Operations Manual.

Individuals and organisations that make submissions will also face costs when preparing submissions. These costs can not be quantified however.

Options considered

The options considered relating to the extent and timing of review are:

- Option 1: ministerial discretion regarding timing and approach to reviews (no regulation)
- Option 2: periodic scheduled reviews with requirement to call for public submissions (proposed regulation).

Option 1

Under the first option, the timing and approach to reviews of the methodology would be entirely at the discretion of the Minister. This may lead to a reactive, ad hoc approach to methodology reviews which may fail to address broader issues.

It is important to provide certainty to scheme participants regarding the times at which significant changes to the methodology may occur in order to maintain confidence in both the consistency and the strong scientific basis of the methodology, and to provide guarantees relating to the transparency of the review process.

Option 2

By setting minimum requirements for review of the assessment methodology at least every five years and calling for public submissions, the regulation ensures that:

- the rules for offsets under BioBanking are regularly updated to reflect scientific advances
- changes to the methodology are made transparently
- changes which may affect the interests of participants in the scheme will be made with due process.

4.4 The BioBanking Trust Fund

The BioBanking Trust Fund (the Fund) is established by the TSC Act to provide an effective means of making long-term financial provision for land management. It is intended that when biobank site owners sell their biodiversity credits, a minimum amount from the proceeds will be transferred to the Fund and invested. If the credits are sold for more than the minimum amount, the difference is retained by the biobank site owner. Annual payments will then be made from the Fund to the site owner to assist with the cost of site management. These payments will be conditional on performance of the management actions set out in the biobanking agreement and on the individual account for a specific site within the Fund having sufficient funds. The Fund therefore reinforces the compliance and monitoring of biobank sites.

Regulatory powers are provided for establishing rules regarding several key aspects of the operation of the Fund. The regulations support the objectives of the Fund by:

- requiring that financial provision is made in the Fund in respect of each site equal to the present value of the estimated cost of site management
- ensuring the Fund is accounted for, managed and reported on adequately, and that it keeps separate accounts for each site
- ensuring appropriate management of financial risk.

The proposed rules for the operation of the BioBanking Trust Fund

Adequate financial provision for land management

The proposed regulation provides that a specified amount be transferred to the Fund on the first sale of credits. It also requires that this amount is equal to the total present value of the estimated costs of management actions specified in the biobanking agreement. If credits are retired without first being sold, an equivalent payment must still be made into the Fund.

The present value of site management costs is the amount that needs to be invested at the time of the agreement to meet those future annual payments to biobank site owners, taking estimated future inflation and investment income into account. The calculation is for the life of the agreement, i.e. in perpetuity.

An important advantage of this approach is that it offers the highest probability that funding for land management will last for the period of the agreement. The period of the agreement is necessarily in perpetuity as a biobank site acts as an offset for a development site where it must be presumed that biodiversity loss is permanent. This approach closely follows the legislative intent that payments from the Fund are made in respect of the cost of management actions carried out in accordance with the biobanking agreement (s. 127ZW of the TSC Act).

This approach effectively sets a minimum credit price for a given site, based on the present value of site management costs, divided by the number of credits issued for the site. This will largely preclude biobank sites being formed where the proceeds from the sale of credits will not be adequate to fund management of the site.

Two alternatives regarding the amount to be deposited into the Fund were considered:

1. an amount equal to a fixed proportion of credit sale proceeds
2. an amount equal to the present value of estimated management cost for a finite (shorter) period.

The first option was rejected on the basis that it would result in the deposit not bearing any relation to the cost of required land management.

If the second option was adopted, the amount to be deposited in the Fund would be equal to the present value of the estimated cost of site management for a fixed term, such as 75 years. This second option was rejected because there would be reduced incentives for continued conservation after fixed-term payments cease. The decision in favour of perpetuity was made based on the obvious advantages for ensuring biodiversity protection in the long term from having perpetual funding.³

The regulation specifies that the estimation of land management cost should be as complete as possible, including management time, labour costs, raw materials, equipment and capital costs, annual reporting costs and, where applicable, rates, taxes and fees. The intention is to ensure that site management costs can be provided for, even after changes in ownership or management. Alternatives considered included allowing labour and capital costs donated by landowners to be excluded. However, this would imply that the future payments from the Fund would not cover costs if the first biobank site owner is unable to do the work or sells the site to another owner.

The regulations include provisions concerning the proportions of sale proceeds that must be transferred to the Fund under various conditions. The intention of these provisions is to maximise the chance that the full required payment to the Fund can

³ Detailed data on the present value of land management payments are shown in Appendix B.

be made from the proceeds of all of the credits sold, and to allow credits of different types and different values to be sold at market prices whenever possible. These provisions include a requirement that all proceeds from sale of credits are transferred to the Fund until the full value of future management actions is reached, after which all proceeds are kept by the biobank site owner.

Provisions have also been included in the regulation to ensure that if a biobank site is terminated,⁴ the assets in the Fund in respect of that site are used for land management on other biobank sites or returned to landholders.

A developer, or other purchaser of credits, is not responsible for ensuring the appropriate management of the biobank site at which the credits were created. It is important to ensure that the payment into the Fund at the sale of credits is sufficient to ensure future management of that site, even allowing for the employment of third parties to carry out this work if necessary in the future.

The BioBanking Trust Fund is a sound and secure means of investing long term for this specific and exclusive purpose

The regulations include provisions designed to ensure the security and transparency of the Fund, including the following:

- The entity appointed as the Fund Manager must keep separate accounts for each biobank site in the Fund.
- The Fund Manager must report to the Minister quarterly on the performance of the Fund.
- Annual reports on the management and performance of the Fund must be made public.

The regulations also provide for a committee to be appointed, to oversee the Fund Manager.

Managing financial risks to government and biobank site owners

The biobanking agreement between the Minister and biobank site owner will include a schedule of payments from the Fund over time. The investment of funds in order to meet this schedule entails potential financial risks for the Minister and the biobank site owner. The biobanking agreement and the regulation include several provisions to control these risks.

The calculation of the investment in the Fund will be based on conservative assumptions regarding investment income. However, if actual future income is below the assumed rate for an extended period, it is possible that the funds in an account will eventually run out. The regulations constrain the Minister to approving payment from the Fund subject to availability of funds in the biobank site owner's account. If the funds in an account run out, payments to that account holder will cease. The regulations include a provision for the payments to be reduced to prevent funds being exhausted if this is likely to occur, by agreement with the biobank site owner.

The biobank owner therefore faces the risk that payments may eventually cease. This risk – which depends in part on financial market performance – is considered small and it is expected that biobank site owners are more likely to receive payments exceeding the scheduled payments set out in the biobanking agreement. The risk of an account running out of funds over a 100-year period has been calculated by consulting actuary Taylor Fry to be approximately 1 in 11 with a real discount rate of

⁴ The legislation allows sites to be terminated under restricted circumstances, such as granting of a mining licence. Note that if a site is terminated because no credits have been sold, there would be no money in the site's BioBanking Trust Fund account.

4.0%, and 1 in 5 with a discount rate of 4.5%. The likelihood that actual investment returns are equal to or higher than expected and the Fund generates excess income is calculated at 10 in 11 (or 4 in 5 respectively). The regulations provide for bonus payments to the biobank owner in addition to scheduled payments where account balances exceed 130% of the level needed for the likely sustainability of the account, subject to performance of agreed management actions.

Tasks associated with the management of the Fund will include auditing, maintaining financial accounts, and board administration, and are expected to require an EPO9 officer for one day per week at an approximate annual cost of \$26,000. Investment management charges will also be incurred – these costs will be met by a 0.5 per cent management fee on funds invested.

Options considered

The following options have been considered in arriving at the BioBanking Trust Fund model to provide ongoing payment for the management of biobank sites:

- Option 1: no formal financial provision mechanism
- Option 2: BioBanking Trust Fund arrangements set out in the TSC Act and the proposed regulation
- Option 3: require biobank sites to provide an equivalent financial investment structure.

Option 1

Under Option 1, the entire proceeds of biodiversity credits would be received directly by the biobank site owner at the sale of credits. The scheme would rely on site owners making their own provision for permanent management of the site, including the event of a change of ownership of the biobank site. Under this approach there is significant risk that future owners of biobank sites would not have sufficient funds to cover the costs of managing the sites.

This approach would rely more heavily on legal enforcement of biobanking agreements to ensure compliance over time. Providing ongoing financial incentives linked to compliance with biobanking agreements (as under the adopted model) is a positive way to ensure ongoing management of biobank sites.

Option 2

The BioBanking Trust Fund arrangements provided for in the TSC Act and the proposed regulation provide a transparent and efficient mechanism for providing long-term financial support for biobank site owners to assist with management of their sites in accordance with their biobanking agreements.

The operation of the Fund will involve some administrative costs but these are warranted given the importance of the Fund to the long-term effectiveness of biobank sites. It is also expected that the Fund will lead to cost savings through avoided enforcement activities at biobank sites.

Option 3

Option 3 would require landowners who wish to enter into a biobanking agreement to provide a plan for financial management of the site over the long term. This approach is used in some biodiversity banking and mitigation schemes in the United States of America. For example, under the Conservation and Mitigation Banks operated by the Californian Department of Fish and Game, biobank managers must provide a detailed management plan including plans for investment to earn necessary revenue

to fund land management for the term of the bank (including in perpetuity in some cases) before the plan is approved, the site established and any credits sold.

This approach imposes greater financial and operational risks on potential biobank site owners than those posed under the proposed Fund. Providing the financial infrastructure as under BioBanking should lower the costs of participation in the scheme, enabling smaller sites to be conserved than would otherwise be the case.

Alternative financing arrangements such as performance bonds or financial assurances held with a private financial institution would also be more expensive (generating lower returns) than a mechanism of investment of pooled funds that can be provided under a specialised service for all scheme landholders.

4.5 Scheme administration costs and fees

Part 7A of the *Threatened Species Conservation Act 1995* provides that the BioBanking Regulation may require participants in the BioBanking Scheme to make a contribution towards the costs of running the scheme, including management, administration and compliance costs. The Act also provides regulation making powers to levy administrative fees at particular points in the process.

To provide a structure for analysis of the costs and for establishing proposed fees, the key stages of BioBanking have been identified as follows:

- establishing a biobank site through a biobanking agreement with a landowner
- issuing a biobanking statement to a developer
- making payments into the Fund on first transfer of credits
- transferring and retiring biodiversity credits
- ongoing compliance assurance at biobank sites.

A number of other administrative stages are also anticipated:

- altering a biobanking agreement
- terminating a biobank site
- altering a biobanking statement
- enforcing biobanking statements
- enforcing biobanking agreements.

Additional tasks to be funded directly by participants include:

- land survey costs at biobank sites (depending on Department of Lands requirements)
- site assessment and application preparation costs for developers.

Projected scheme participation

Conservative scheme participation estimates have been used to compare the costs of administering the BioBanking Scheme relative to the total fees which will be collected from participants (revenue). Size economies are already assumed in the estimated scheme administration costs. Therefore, different participation levels only have an impact on total shortfall between revenue and costs as opposed to the percentage of cost recovery.

Based on Appendix A, initial annual participation is estimated at 4–22 developers obtaining biobanking statements or buying and retiring biodiversity credits without a biobanking statement.

The participation scenarios assume that 2.5 biobank sites will be established for each developer seeking to buy and retire credits to offset the impacts of a development. This leads to an estimated 10–55 biobank sites being established per year, depending on the level of developers participating in the scheme.

The estimated level of developer participants in the scheme relative to the number of biobank sites established is based on the results of the BioBanking Assessment Methodology pilot, which suggested that 2.5 biobank sites will be needed on average to satisfy the credit requirements of each developer participating in BioBanking.⁵

Estimated scheme administration costs

Table 1 shows the overall costs of the key tasks involved in running the BioBanking Scheme. These have been calculated based on the estimated time and skills required to undertake the task once the scheme is up and running and staff are working at full capacity. An additional 60% is included for on-costs (comprising 30% salary on-costs and an additional 30% for non-salary costs).⁶ The cost estimates also include fees charged by the Department of Lands for registering biobanking agreements on title.

Table 1 does not include costs associated with set-up of the scheme, such as providing base levels of staffing, establishing the IT system, reviewing the BioBanking Assessment Methodology and other ongoing development and maintenance tasks, as these costs will be met by DECC and not recouped through the proposed fees.

⁵ The credit per hectare ratio was 7.5, but biobank sites were three times the size of development sites on average, leading to an average ratio of biobank to development sites of 2.5:1.

⁶ It is standard to provide for 30% on-costs in addition to staff time to account for additional salary-related costs such as superannuation and leave loading. Further on-costs were added to account for operational on-costs such as equipment and travel. Operational on-costs were estimated at an additional 30% based on the proportion of departmental expenditure relative to salary-related costs.

Table 1 Estimated scheme administration costs (key stages)

Key stage	Cost estimates per site (\$)	Total annual cost for an estimated 10–55 biobank sites and 4–22 development sites ¹ (\$)
For establishing biobank sites		
Administration costs for establishing a biobank site	3,000–4,800	48,000–264,000
Site management plan	850–1,300	13,000–71,500
Cost of site assessment	1000–2,500	25,000–137,500
For issuing biobanking statements		
Administration costs issuing biobanking statement	1,500–2,300	9,200–50,600
Site assessment and application preparation	25,000	100,000–550,000
First transfer of credits from biobank site (including the cost of Fund account setup)	340–520	5,200–28,600
Credit retirement	60–120	960–5,280
Administration/compliance for biobank sites: <ul style="list-style-type: none"> • checking annual reports from biobank site owners • site inspections • audits of biobank sites (one audit every 10 years) 	860–1,500 per year ²	15,000–82,500 per year
Other administrative tasks		
Altering a biobanking agreement ³	890–1,400	Not estimated
Terminating a biobank agreement ⁴	500–900	Not estimated
Altering a biobanking statement	800–1,200	Not estimated

1 See Appendix A; total annual costs based on upper estimates for cost estimates per site.

2 The present value of this cost is approximately \$17,000.

3 See sections 127Q, 127S, 127T and 127ZE of the TSC Act.

4 See sections 127Q, 127S, 127T and 127ZE of the TSC Act.

The costs have been estimated assuming that the key steps involved in administering biobanking will be carried out by DECC, CMAs, or other organisations that can provide the services at similar cost.⁷

Costs for establishing biobank sites do not currently include costs of providing a land survey of the biobank site for the purposes of registering the agreement on land title. DECC is investigating whether this requirement is necessary, as site surveys could cost up to \$16,000 per site.

⁷ While scheme administration is expected to be met with current DECC resources, any re-allocation of resources into the BioBanking Scheme administration does represent an opportunity cost to DECC.

Proposed fees

The proposed fees for the BioBanking Scheme are set out in Table 2. This includes fees for:

- issuing a biobanking statement to a developer
- establishing a biobank site through a biobanking agreement with a landowner
- retiring credits against a biobanking statement
- retiring credits without a biobanking statement (e.g. government, developers required to retire credits under a Part 3A approval condition).

Table 2 sets out the stages at which fees would be charged and the estimated revenue to DECC corresponding to those stages.

Table 2 Proposed fees

Stage at which fee charged	Proposed fee (\$)	Estimated total fees collected annually for an estimated 10–55 biobank sites, 3–14 developments with statements and 1–8 without statements ¹ (\$)
For developers who obtain a biobanking statement		
Application for biobanking statement	10,100	30,300–141,400
Application to transfer credits (including Fund account setup)	100	1,000–5,500
Application to retire credits against biobanking statement	500	1,500–7,000
Developers and others who do not obtain a biobanking statement²		
Application to transfer credits	100	100–800
Application to retire credits without a biobanking statement	10,500	10,500–84,000
For biobank site landowners		
Application for biobanking agreement	600	6,000–33,000
Assessment of site (using BioBanking Assessment Methodology)	Estimated 2,500 (fee \$500/day)	25,000–137,500
Preparation of site management plan	Estimated at 750 (fee \$500/day)	7,500–41,250
Ongoing compliance assurance	1,100 per year	11,000–60,500
Proposed fees for varying / terminating a biobanking agreement/ statement		
Application to vary biobanking agreement	1,100	Not estimated
Application to terminate biobanking agreement	700	Not estimated
Application to modify a biobanking statement	1,100	Not estimated

1 See Appendix A.

2 These could include developers requiring offsets under Part 3A approvals, non-government organisations, or government agencies seeking to promote conservation objectives.

Fees for biobanking statements will subsidise the cost of establishing biobank sites, as will fees for retiring credits without a biobanking statement. Developers seeking to obtain a biobanking statement would also cover the costs of site assessment for the development (estimated to be \$25,000 per site; see Table 1).

It is proposed that biobank site owners pay an annual fee to cover the costs of ongoing compliance assurance at the site. Annual compliance assurance costs are estimated at approximately \$1,100 per biobank site, assuming a site inspection once

every three years and a comprehensive site audit once every ten years. In practice, this annual compliance assurance fee would be included in estimating the annual management costs for the biobank site used to work out the amount to be paid into the Fund upon the first sale of credits (the present value of annual compliance fees in perpetuity is estimated at approximately \$17,000). Consequently, each scheduled management payment made to the biobank site owner from the Fund will include an amount to cover the annual fee for ongoing compliance assurance.

This approach would increase the cost of credits which increases the cost of participation in the scheme for developers and may reduce profit margins for potential biobank site owners. However, the cost of ongoing compliance is likely to be small compared to the cost of ongoing management of the biobank site.⁸

Scheme administration costs versus fee revenue collected

Based on the scheme administration costs outlined in Table 1, and the expected revenue from the fees outlined in Table 2, the BioBanking Scheme will achieve approximately 80% cost recovery, leading to an annual shortfall for DECC of approximately \$20,000–100,000 depending upon the level of scheme participation. The level of cost recovery and fee levels and structure will be evaluated at the two-year review of the scheme.

Rationale for proposed fee levels and fee structure

While the fees do not meet the full cost of administration, DECC considered the importance of not setting fees that would limit participation while at the same time ensuring the impact on DECC resources was not onerous and that any revenue shortfall could be covered within existing budgets.

Fees for participation in BioBanking will be one of a number of cost factors influencing whether developers and landowners are motivated to participate in the scheme.

On top of scheme fees, developers participating in the scheme will need to pay the cost of site assessment (estimated at \$25,000) and the cost of purchasing biodiversity credits. The key potential cost savings from participation in BioBanking are from time saved through avoiding the Assessment of Significance and Species Impact Statement processes and increased certainty of biodiversity offset requirements.

An analysis comparing the cost of current Threatened Species environmental assessment and BioBanking showed that developers would face similar flora and fauna survey and mapping costs. The additional requirements (such as Species Impact Statement processes, concurrence, negotiations) would result in approximately \$60,000 in additional costs.

Landowner costs are kept down by providing the option of obtaining site assessments and site management plans from catchment management authorities and/or DECC rather than private sector consultants, and by seeking only partial cost recovery for administrative costs associated with establishing biobank sites. This approach reduces barriers to the establishment of biobank sites by landowners, and is therefore in the public interest under competition policy principles.

⁸ An analysis prepared for DECC estimated the costs of carrying out conservation management at sites participating in the pilot of the BioBanking Assessment Methodology. Based on these estimates, the present value of ongoing management costs ranged from \$300,000 to over \$1 million at the six sites included in the analysis.

Landowners are not expected to incur many upfront costs in establishing a biobank site, apart from fees paid to DECC. To help ensure this, landowners may hold off the final step of entering into an agreement and commencing management of the site until they have buyers for their credits (and therefore income for management actions).

Cost recovery for other administrative tasks

The estimated annual costs of administering BioBanking and estimated fee revenue do not include costs and fees associated with other administrative tasks such as varying a biobanking agreement. Fees for these steps are based on their average estimated cost. Therefore cost recovery should be close to 100% where variations or terminations are sought by the biobank site owner or statement holder. There may be less than full cost-recovery where biobank sites are varied or terminated due to a competing public purpose or where enforcement action at biobank sites is necessary. These potential shortfalls are, however, very difficult to predict given it is not known how often variation or termination will be required.

Options considered

- Option 1: no powers to charge fees in the regulation (no regulation)
- Option 2: fees set out in Table 2 included in the regulation (proposed regulation)
- Option 3: increased fees to achieve full cost recovery (alternative regulation)
- Option 4: cost recovery entirely through fees on developers participating in BioBanking (alternative regulation)

Option 1

The TSC Act gives the Director General of DECC the power to charge application fees for biobanking statements and the transfer of biodiversity credits. Without using the additional powers under the regulation for cost recovery and application fees, DECC would not have the capacity to recover more than a small proportion of the costs of running to the scheme.

Without sufficient resourcing, the objectives of the scheme would be jeopardised. The administration of the scheme would suffer and processing of applications for biobanking statements and agreements would be likely to be very slow. This would be seriously detrimental to the scheme's objective of providing a streamlined alternative to the assessment of significance and Species Impact Statement processes.

Option 2

The fees established by the regulation strike a balance between recovering the costs of administering the scheme and keeping fees at a level that would not provide an impediment to participation in the scheme. The cost of this approach to DECC is estimated at \$20,000–100,000 per year (in terms of revenue shortfall).

The total fees paid by landowners establishing biobank sites and developers participating in the scheme are estimated at approximately \$3,850 and \$10,700, respectively. However, participation in the scheme is voluntary and landowners and developers will only elect to participate where it is in their interests to do so.

Option 3

Taking the maximum estimated costs of scheme administration, and with the performance of assessment at biobank sites by CMA or DECC staff, full cost recovery could be achieved by increasing the application fees for biobanking agreements by a further \$700 and by increasing the application fees for biobanking

statements and the fee for retirement without a biobanking statement by \$3,000. Under this option, DECC felt that this level of fees would be a disincentive for the participation of both developers and site owners.

Option 4

A second alternative approach considered was to obtain cost recovery primarily through developers participating in the scheme, with only a nominal fee for applying for a biobanking agreement. Under this approach, all costs associated with establishing biobank sites, including site assessment and preparation of a site management plan, would be covered by developers' fees. An advantage of this approach is that it would encourage landowners to establish biobank sites, thus providing a strong supply of biodiversity credits. This may increase the usefulness of the scheme to developers as it would increase their chances of quickly obtaining suitable credits to meet their offset requirements.

However, this approach was overly sensitive to variations in the ratio of biobank site to developer participants, currently estimated at 2.5:1.⁹ Once the scheme is up and running the estimated participation rates of biobank sites relative to developers may prove to be inaccurate. For example, it may turn out that more than 2.5 biobank sites are needed on average to meet developers' demand for credits.

4.6 Miscellaneous provisions

4.6.1 Additional information on public registers

The TSC Act requires a register of biobank sites, biodiversity credits and biobanking statements to be established with information on the register to be made available to the public on the DECC website.

The biodiversity credit register is to include a range of information in relation to each biodiversity credit, including the particulars of the biobank site from which each credit originated. The regulation provides that credit transfers must also be recorded on the public register with the price and date of transactions included. This additional information will facilitate the establishment of the market in biodiversity credits by allowing potential participants to judge the price of credits. This allows landowners and developers to make an informed decision whether to participate in the scheme.

The biobank site register will contain information regarding the location of each biobank site and copies of biobanking agreements for each biobank site. The regulations also include provisions regarding the location of threatened species, populations or ecological communities, or the location of critical habitat that the Director General of DECC has determined is not in the public interest to disclose on the biobank site register.

The biobanking statement register is required to contain a copy of each biobanking statement issued by the Director General of DECC. The regulation will also provide for the status of a statement to be included (e.g. whether the credit retirement conditions have been met). This will provide an accountability mechanism by allowing the public to check whether the credit retirement requirements for a development which is in progress have been met.

⁹ Under the proposed fee structure, where more than five biobank sites are established per developer buying and retiring credits under the scheme, the proportion of costs recovered would be reduced to 65%. Should ten biobank sites be established for each developer participant, 55% cost recovery would still be achieved.

The regulation also requires that personal information is not to be provided on the public register where this would contravene the *Privacy and Personal Information Protection Act 1998*.

The costs of adding these additional pieces of information to the public register will be negligible.

4.6.2 Requirements for applications

The regulation includes provisions which establish requirements for a number of applications under BioBanking. Provisions are made for applications for biobanking agreements, to vary biobanking agreements, and to retire biodiversity credits. These provisions specify that applications must be made in a form approved by the Minister and the Director General of DECC, respectively.

There are no cost implications for these provisions.

4.6.3 Requirement that credit retirement assessment be carried out by an accredited consultant

The regulation also provides that an application for a biobanking statement (or an application to modify or revoke a biobanking statement) may be refused if the impact assessment or credit retirement assessment that accompanies the application has not been prepared by a person accredited under arrangements instituted under s. 142B of the TSC Act or has not been prepared in accordance with the conditions of the person's accreditation under those arrangements.

The accreditation process involves ensuring that persons undertaking impact assessment and credit retirement assessment are trained in the application of the BioBanking Assessment Methodology and Credit Calculator and have appropriate skills necessary to obtain the information needed.

Consultants undertaking flora and fauna assessments of development already have expertise relevant to undertaking assessments under the BioBanking Scheme. Short training courses (of around three days) would be required in order to ensure understanding of how to apply the assessment methodology given this skill base.

It is estimated that the cost to run these courses will be approximately \$1,500 per person. Given this is a once-off cost to consultants, the cost passed on to persons applying for biobanking statements would be minimal.

5. Conclusion

If the Biodiversity Banking and Offsets Scheme commenced without the proposed regulation in place, a number of key aspects of the scheme's administration would be governed by policy guidelines or case-by-case decision making by the Minister or the Director General of DECC.

For example, without using the regulation-making powers under the TSC Act for cost recovery and application fees, DECC would not have the capacity to recover more than a small proportion of the costs of running the scheme.

Option 2, the proposed regulatory option, provides the greatest net benefits to the community. The mechanisms embodied in the regulation promote the administrative consistency, efficiency and transparency of the scheme.

In the development of the regulations, DECC examined a range of alternative options to the proposed regulations: these were found not to hold any significant advantages over the proposed regulatory provision.

6. References

Australian State of the Environment Committee, 2001, *Australia State of the Environment 2001*, Independent Report to the Commonwealth Minister for the Environment and Heritage, CSIRO Publishing on behalf of the Department of the Environment and Heritage, Canberra.

Department of Environment and Conservation, 2006, *New South Wales State of the Environment 2006 (SoE 2006)*, DEC, Sydney.

Department of Planning, 2005, *City of Cities – A Plan for Sydney's Future. Metropolitan Strategy*, Department of Planning, Sydney.

NSW Legislative Assembly 2002, *Debates*, p.2692, www.parliament.nsw.gov.au/prod/PARLMENT/hansArt.nsf/V3Key/LA20020605041#, viewed 19 October 2007.

Appendix A Estimated participation in BioBanking

The estimated level of participation by developers is based on the number of Part 3A approvals requiring some biodiversity offset and numbers of Parts 4 and 5 developments requiring a Species Impact Statement under the EP&A Act.

Whilst these figures are conservative, it is expected that participation will be lower in the first few years as awareness and information about the scheme develops. In particular, developers will want to see a strong supply of biodiversity credits and cost savings. Landholders will be influenced by the cost of participation, extent of ongoing obligations, and the ease of establishing a biobank site.

Four levels of participation scenarios have been derived, giving 4–22 developer participants in the scheme. The annual average numbers of offsets required under Part 3A, and the Species Impact Statements required under Parts 4 and 5, are reduced by 50% to derive Scenario 1. A further 25% reduction is assumed for Scenarios 2 and 3.

The number of biobank sites established is estimated to be 10–55, assuming that the number of biobank sites established will be driven by the credit requirements of the biobanking statements and Part 3A approvals issued.

Scenario 1 (high participation)

- 55 biobank sites established
- 14 biobanking statements issued
- 8 Part 3A developments required to retire biodiversity credits
- 22 sets of credits retired

Scenario 2 (medium participation)

- 43 biobank sites established
- 11 biobanking statements issued
- 6 Part 3A developments required to retire biodiversity credits
- 17 sets of credits retired

Scenario 3 (low participation)

- 30 biobank sites established
- 8 biobanking statements issued
- 4 Part 3A developments required to retire biodiversity credits
- 12 sets of credits retired

Scenario 4 (worst case scenario)

- 10 biobank sites established
- 3 biobanking statements issued
- 1 Part 3A developments required to retire biodiversity credits
- 4 sets of credits retired

Appendix B The present value of land management

The TSC Act provides that a biobanking agreement includes a plan of management actions required on the biobank site, a costing for those actions, and a schedule of payments from the BioBanking Trust Fund (the Fund) to the biobank site owner based on those costings.

The agreement will also specify the amount to be transferred to the Fund in respect of that site, equal to the present value of the estimated cost of land management on that site.

Table A1 shows an example of estimated management costs on a biobank site. In this example, anticipated costs *in today's money* are listed specifically for the first five years in the relevant columns. An amount to be paid annually thereafter (i.e. from years 6 to infinity) is included in the final column. The present values of these amounts are shown in the row below the cashflows.

The discount rates used are examples of actual estimated market returns after inflation. Real returns must be used because the schedule of payments is adjusted for inflation. Actual market returns (as opposed to a statutory discount rate) must be used because the stated returns or better must actually be achieved over time for the actual investment amount to be adequate to meet scheduled payments in perpetuity.

Table A1 Management action cost and the payment to the BioBanking Trust Fund

Item	Short-term					Long-term
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 onwards
Install boundary fencing	23,500	0	0	0	0	0
Remove internal fencing	2,300	0	0	0	0	0
Removal of rubbish	3,450	0	0	0	0	0
Project management	2,800	0	0	0	0	0
Primary bush regeneration	16,600	0	0	0	0	0
Follow up bush regeneration	13,250	16,050	0	0	0	0
Reporting/compliance	3,000	2,500	2,000	1,500	1,500	1,500
Site maintenance	0	0	6,000	6,000	6,000	6,000
Total annual cost	64,900	18,550	8,000	7,500	7,500	7,500
Discount rate	0.032	0.032	0.032	0.032	0.032	0.045
Present value (formula)	$\frac{64,900}{1.032^1}$	$\frac{18,550}{1.032^2}$	$\frac{8,000}{1.032^3}$	$\frac{7,500}{1.032^4}$	$\frac{7,500}{1.032^5}$	$\frac{7,500}{0.045} \times \frac{1}{1.045^5}$
Present value (amount)	62,888	17,417	7,279	6,612	6,407	133,742
					100,603	133,742
Total present value						234,345

One discount rate is used for the first five years and another for subsequent payments. The first discount rate (3.2%) represents a low risk inflation adjusted rate which approximates expected returns on very low risk investment appropriate to provide for the early high-level establishment payments.

It would be appropriate to make more balanced investments (including growth assets such as shares) to fund the ongoing payments. Consequently a higher discount rate (4.5%) is used for the ongoing component.