



NSW Biodiversity Offsets Policy for Major Projects

© 2014 State of NSW and Office of Environment and Heritage

With the exception of photographs, the State of NSW and Office of Environment and Heritage are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged. Specific permission is required for the reproduction of photographs.

The Office of Environment and Heritage (OEH) has compiled this publication in good faith, exercising all due care and attention. No representation is made about the accuracy, completeness or suitability of the information in this publication for any particular purpose. OEH shall not be liable for any damage which may occur to any person or organisation taking action or not on the basis of this publication. Readers should seek appropriate advice when applying the information to their specific needs.

Published by:

Office of Environment and Heritage for the NSW Government

59 Goulburn Street, Sydney NSW 2000

PO Box A290, Sydney South NSW 1232

Phone: +61 2 9995 5000 (switchboard)

Phone: 131 555 (environment information and publications requests)

Fax: +61 2 9995 5999

TTY users: phone 133 677, then ask for 131 555

Speak and listen users: phone 1300 555 727, then ask for 131 555

Email: info@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or info@environment.nsw.gov.au

See also www.environment.nsw.gov.au

ISBN 978 1 74359 751 4

OEH 2014/0672

September 2014

Contents

- Introduction 5
- Objectives 6
- Scope and application 9
- Policy principles 10
- How the policy will work..... 15
- Appendix A: Further details 22
- Appendix B: Supplementary measures 24
- Appendix C: Decision flow diagram..... 31
- Appendix D: Mining operations plan..... 32

Introduction

The NSW Biodiversity Offsets Policy for Major Projects (the policy) clarifies and standardises biodiversity impact assessment and offsetting for major project approvals in NSW.

Biodiversity offsets provide benefits to biodiversity to compensate for adverse impacts of an action. They assist in achieving long-term conservation outcomes while providing development proponents with the ability to undertake actions that have unavoidable impacts on biodiversity.

For example, if a proponent requires an area of native woodland to be cleared for a development to proceed, another area of similar woodland can be protected and managed for conservation in perpetuity. Over time, the gain in biodiversity achieved by improving the similar area of woodland will counterbalance the biodiversity lost due to the clearing.

The policy provides a standard method for assessing impacts of major projects on biodiversity and determining offsetting requirements. This reduces the need for case-by-case negotiations, including debates around the adequacy of assessments. It also provides increased certainty to proponents, allowing offsetting requirements to be known and factored in during the planning phase of a project.

By implementing clear and consistent guidance for assessing and offsetting the biodiversity impacts of major projects, the policy strikes an effective balance between the needs of proponents, communities and the environment.

Policy implementation

The policy will initially be implemented for a transitional period of 18 months. After this time, it is intended that legislative change will be made to formalise this approach to biodiversity assessment and offsetting in the planning approval process.

Policy application during transitional period

During the transitional implementation period, application of the policy will be compulsory but a more flexible approach will be permitted to appropriately deal with any technical issues, practical implementation issues or potential perverse outcomes that may arise.

During the transitional implementation period, all new environmental assessment requirements for major projects (issued pursuant to Part 2 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will include a requirement to assess the biodiversity impacts and determine associated offsets arising from a proposal in accordance with the NSW Biodiversity Offsets Policy for Major Projects. However, if application of the policy or its underlying tool, the Framework for Biodiversity Assessment (FBA), results in perverse outcomes that do not reflect the intentions of the policy, the consent authority may vary the application of the policy or FBA to address this.

For the purposes of clause 14(3) of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries), in the case of any alteration to the application of the policy or FBA that the consent authority intends to approve during the transitional period, the fact that there has been a change will not in itself be considered by the Office of

Environment and Heritage (OEH) as a reason for a certificate not to be issued certifying the adequacy of the measures to mitigate or offset the biodiversity impact of the proposed development.

Legislative implementation

At the conclusion of the transitional implementation period, it is intended that the policy and FBA will be implemented via legislation. Any required changes that have been determined during the transitional implementation period will be made at this point.

Policy review

Policy review after transitional implementation

As mentioned above, the practical operation of the policy will be considered during the transitional implementation period to ensure there are no perverse outcomes or any implementation issues arising. This work will be informed by further testing and ongoing stakeholder consultation. At the conclusion of the transitional implementation period, any changes that are considered necessary will be incorporated into the policy (and FBA) prior to legislative implementation.

Five year review of policy operation

A comprehensive review on the operation of the policy (including the FBA) will be undertaken within five years of legislative implementation. When the policy is included in legislation after the transitional implementation period, consideration will be given to formally including this review clause in legislation.

Definitions of offsets and supplementary measures

The policy refers to 'offsets' and 'supplementary measures' as ways of compensating for biodiversity losses. Across Australian and other jurisdictions, offsets are defined and categorised in many different ways. To provide clarity upfront, broad definitions for these measures are as follows:

- **Offsets:** areas of land that are protected and managed to improve biodiversity values. Requirements for offsets are determined using an objective assessment of predicted loss of biodiversity at the development site and expected gain in biodiversity to be achieved at the offset site. Rehabilitation of a mine site, as described under this policy, can be included as an offset.
- **Supplementary measures:** other measures that are likely to lead to improvements in biodiversity that do not necessarily need to meet all the principles for offsets (as outlined in this document).

Objectives

The policy has three key objectives:

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

Ways in which these objectives will be achieved are described below.

Objective 1: To provide clear, efficient and certain guidance for stakeholders

This objective will be achieved through:

- ***reduced negotiations***

The policy provides a transparent and repeatable method for assessing impacts on biodiversity. This will help avoid protracted debates and negotiations about information used to assess biodiversity impacts, which can be time-consuming and a burden on government and proponent resources. The step-by-step method is contained in the Framework for Biodiversity Assessment (FBA), a tool that is applied by accredited ecological consultants.

- ***knowing biodiversity requirements upfront***

The FBA provides clear guidance on avoiding and minimising the biodiversity impacts of a project. It also provides an objective and repeatable method for determining offset requirements before a development application is submitted. Proponents will be able to save time and money through factoring biodiversity considerations into their project design at an early stage.

- ***transparency in government decision-making***

The FBA is applied using a standardised process and scientific methods to assess biodiversity impacts and offset requirements. As a result, offset decisions will not rely on variable approval processes, making the process transparent to the public and proponents.

Objective 2: To improve outcomes for communities and the environment

This objective will be achieved through:

- ***stewardship payments for managing land***

The policy will enable landowners, including farmers, to receive payments for managing biodiversity on their land through the use of biobanking agreements to secure offsets.

Under biobanking agreements, landowners agree to protect and manage an area of their land to improve its biodiversity values. In return for undertaking agreed management actions to improve biodiversity on these sites, landowners can receive upfront compensation and an ongoing annual payment. These payments are made by the proponent to fulfil their offset requirements.

The use of biobanking agreements for offsets will put a market value on bushland sections of farming properties, allowing farmers and other landowners to receive payments for managing biodiversity on their land.

This policy aims to encourage landowners to take up opportunities to receive stewardship payments through these biobanking agreements. A greater number of interested landowners will increase offsetting options for proponents. It will also help to promote a move away from proponents buying land themselves for offsets, which is not their core business.

- ***promoting measures that achieve better environmental outcomes***

The policy encourages broad, strategic and enduring environmental gains by:

- using the hierarchy of 'avoid, minimise, offset'. Proponents are required to avoid and minimise impacts on biodiversity on a development site before proceeding to use offsets.
- using biobanking agreements to secure offsets. Biobanking agreements provide security and certainty for offsets, as they ensure adequate funding for offset site management and have clear monitoring and reporting requirements. This gives the community increased confidence that agreed management actions will be undertaken and conservation outcomes achieved.
- encouraging offsets on land that is strategically important for biodiversity in NSW, such as land adjacent to rivers, streams and wetlands and important mapped biodiversity corridors. Establishing offset sites in these areas may generate additional biodiversity credits, which can be sold by landowners.
- creating the NSW Biodiversity Offsets Fund for Major Projects (the fund), which, once established, will allow for the strategic purchase and consolidation of biodiversity offsets.

Objective 3: To provide a practical and achievable offset scheme for proponents

This objective will be achieved through:

- **increasing flexibility for achieving offset requirements**

The policy provides greater flexibility for proponents to meet their offset requirements by providing various offset options while ensuring that the best and most credible offsets are provided. Flexible options to meet offset requirements include:

- **supplementary measures** – proponents can provide funds for supplementary measures when offsets are not available. These are other measures that benefit biodiversity but do not specifically involve protecting and managing a site.
- **mine site rehabilitation** – ecological rehabilitation of mine sites will be recognised in calculation of offsets where there are good prospects of biodiversity being restored.
- **variations to like-for-like requirement** – recognising that exactly the same biodiversity is not always available for an offset, the policy allows for variations in the 'like-for-like' requirement so offsets do not always need to be strictly matched to the biodiversity impacted on, but can be targeted to relevant equal or higher conservation priorities. Variation rules can be applied only after all reasonable steps have been taken to satisfy the like-for-like offset requirements.

- **development of a fund**

When established, the fund will enable proponents to make a monetary contribution to satisfy an offset requirement, rather to locating and purchasing offsets themselves.

Scope and application

The policy will apply to state significant development and state significant infrastructure under the NSW planning system, collectively referred to as 'major projects'. This will include decisions made by the Minister for Planning and those delegated to the Planning Assessment Commission or senior officers of the Department of Planning and Environment.

The policy will apply to most impacts on biodiversity likely to be caused by major projects, however, there are some impacts that are not addressed. These impacts will be assessed and considered on a case-by-case basis with advice from relevant government officers. Impacts include those on:

- marine mammals
- wandering sea birds
- species endemic to Lord Howe Island.

In addition, the policy does not provide guidance around certain impacts of a project on biodiversity that are not associated with clearing of vegetation. Examples of these impacts include, but are not limited to:

- bird and bat strike associated with wind farm developments
- vehicle strike
- subsidence and cliff falls associated with mining developments
- downstream impacts on hydrology and environmental flows on surface vegetation and groundwater dependent ecosystems
- impacts on fish passage
- impacts on karst ecosystems.

Separate assessment of these and other impacts may be required. Any additional biodiversity assessment requirements will be incorporated into the Secretary's Environmental Assessment Requirements.

For clarity, the policy also does not consider impacts on other environmental values, including hydrology, flooding, water quality, air quality, land and soils, Aboriginal cultural heritage and historic heritage. Separate assessments may be required for these matters, and may be set out in the Secretary's Environmental Assessment Requirements.

Policy principles

The policy is underpinned by six principles.

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

Biodiversity offsets sit within a hierarchy of 'avoid, minimise, offset'. This means that the first priority is to avoid any unnecessary impacts of a proposed development on biodiversity. Where impacts cannot be avoided, a reasonable attempt must be made to minimise any impact. When all feasible measures have been taken to avoid and minimise the impacts, offsets should be used to compensate for any remaining impacts.

The FBA provides specific instructions for avoiding and minimising impacts on biodiversity and requires proponents to clearly explain why impacts cannot be avoided or minimised any further.

The FBA also identifies impacts that may be considered severe enough to prevent a project going ahead, known as 'impacts that require further consideration'. These impacts include those likely to cause extinction of a species from a local area or reductions in vegetation bordering streams and rivers.

If a project proposes to have an impact requiring further consideration, the prima facie position is that a project should not proceed, given the severity of the impact. The consent authority may, however, consider if there are other factors that might allow the project to proceed with these impacts. This could include consideration of social and/or economic benefits of a project and if the impact can be appropriately ameliorated through additional conservation measures.

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

The policy ensures reliable and transparent assessments through a methodology designed to be used by ecological consultants, the FBA. The FBA sets out clear and repeatable methods to assess impacts on biodiversity on a development site and likely gains in biodiversity on an offset site.

The FBA will be applied by accredited ecological consultants.

Transitional implementation

During transitional implementation of the policy, prior to any legislative change, 'accredited ecological consultants' will mean those accredited under the NSW BioBanking Scheme (section 142B(1)(c) of the *Threatened Species Conservation Act 1995*).

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

Offsets must have a relationship to the biodiversity values being lost. Under the policy, where a proponent has demonstrated that they are unable to locate like-for-like offsets, offsets can be targeted to a similar or

higher conservation priority, but will still need to have a relationship to the biodiversity being lost.

Allowing variations to entities that can fulfil the offset requirements provides greater flexibility for proponents and recognises that exactly the same biodiversity is not always available for an offset. The policy recognises that protecting and improving biodiversity that is of similar value but under the same or a greater level of threat can also provide beneficial outcomes for NSW.

Like-for-like offsets

Under the policy, the default position is that impacts are offset in a like-for-like manner. This means:

- species must be offset with the same species
- plant community types must be offset with closely related plant community types
- aquatic habitat is offset with the same aquatic habitat.

See further details on this in section 1 of Appendix A.

Variation rules where like-for-like is not available

When a proponent is unable to locate a like-for-like offset after taking reasonable steps (what constitutes reasonable steps is outlined in section 2 of Appendix A), they may apply the variation rules to locate an appropriate offset.

The variation rules allow vegetation to be offset with a broader suite of similar vegetation types in the locality that have undergone a similar or greater amount of past clearing. They also allow species to be offset with similar species in the locality that use the same habitat and are under a similar or greater level of threat.

For aquatic habitat this may include similar or more threatened habitat within the same catchment.

In order to manage the risk of decline of entities that are scarce, the policy does not allow such variation to be applied to critically endangered species and communities or threatened species and ecological communities that are considered nationally significant (listed under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*). These must be offset in a like-for-like manner.

The aim of these rules was to ensure alternative offsets are still reasonably similar to the entities being impacted.

See further details on variation rules in section 1 of Appendix A.

Principle 4: Offsets must be additional to other legal requirements.

Offsets must provide an actual addition to biodiversity rather than something that was going to occur anyway. To ensure this, the policy applies the principle that improvements to biodiversity made through undertaking management actions must be in addition to other legal obligations for conservation that are attached to the land.

Public land

This principle is relevant for Crown and other public land that have existing legal requirements for environmental management. These requirements are recognised under the FBA by reducing the number of biodiversity credits that can be generated under a biobanking agreement. A discount of 5-7.5% is applied to overall credits for each management action already legally required on the land.

Carbon credits

Land management requirements for the purpose of creating carbon credits are not considered to be legal requirements for biodiversity management under this policy. This means that the same site can potentially generate both biodiversity credits and carbon credits through the same management actions.

Principle 5: Offsets must be enduring, enforceable and auditable.

The policy requires that a biobanking agreement be used to secure an offset site, subject to the exceptions and transitional arrangements set out below.

Biobanking agreements ensure there is adequate funding available for current and future landowners to manage the offset site, and ensure that land is not simply 'locked up and left'. They also have clear monitoring and reporting requirements. Criteria for suitable offset arrangements are set out in section 3 of Appendix A. Biobanking agreements meet these criteria.

Security of aquatic offsets will not be undertaken through biobanking agreements, as a method for quantifying aquatic biodiversity using credits is yet to be developed. Aquatic offsets will, instead, use security mechanisms that meet the criteria outlined in section 3 of Appendix A.

Transitional implementation

The requirement to use biobanking agreements will commence once certain building blocks for the establishment of biobanking agreements are in place. This is to recognise that this policy position requires a move from the practice of using several different conservation mechanisms to secure offsets to one mechanism. It will ensure resources are adequately directed to biobanking agreements prior to requiring their use.

During the transitional implementation of this policy, biobanking agreements **must** be used to secure offsets if any of the following conditions are met:

- there are appropriate credits available on the market for purchase (noting that 'reasonable steps' to locate offsets includes a requirement that an expression of interest be put on the biobanking credit register for a minimum of six months)
- the fund has been established, or
- a service agreement for establishment of biobanking agreements has been put in place by OEH.

If none of those conditions have been met, a proponent may use an alternative mechanism to secure an offset during the transitional implementation period. The alternative mechanism should as closely as possible meet the five criteria outlined in section 3 of Appendix A. Early adopters of biobanking agreements will be encouraged, given the clear

benefits they provide in terms of certainty of management funding for current and future landowners.

During the transitional implementation period, OEH will undertake an internal systems review to ensure it has capacity to deliver biobanking agreements that will be required under this policy. This review will result in actions to increase efficiencies and address deficiencies where appropriate. It will also result in the establishment of a service agreement for biobanking agreements. The service agreement will clearly set out expected timeframes for establishment of biobanking agreements.

During the transitional implementation period, a model will also be established for transfer of offsets to the national parks system where appropriate. Until this occurs, biobanking agreements must first be used (where any of the above criteria has been met) to secure offsets prior to any transfers to the national parks system. The intention would be that any alternative model developed will achieve the same outcomes as biobanking agreements (and meet the criteria at Appendix A) but will be more suited to management arrangements in national parks.

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

If appropriate offset sites cannot be found, proponents can provide funds for supplementary measures. Reasonable steps must be undertaken to locate appropriate like-for-like offset sites before supplementary measures can be considered (what constitutes reasonable steps is outlined in section 2 of Appendix A), as offset sites covered by biobanking agreements achieve a more clearly measurable conservation gain.

Supplementary measures are measures, other than protection and management of land as an offset site, that are known to improve biodiversity values. They may include:

- actions outlined in threatened species recovery programs
- actions that contribute to threat abatement programs
- biodiversity research and survey programs
- rehabilitating degraded aquatic habitat.

The amount of money to be contributed to supplementary measures will be calculated so it is approximately equivalent to the cost of establishing an offset site. Ensuring the amount a proponent is required to contribute to supplementary measures is commensurate with the cost of establishing an offset site will prevent an artificial bias towards supplementary measures over offsets (see Appendix B for further details of the rules for supplementary measures).

Where a suitable like-for-like supplementary measures is available (that is, a tier 1 supplementary measure – see further details at Appendix B), this can be used as an alternative to offsetting with another entity under the variation rules, as described under Principle 3. See decision flow diagram at Appendix C for further details.

Aquatic biodiversity

The FBA will apply predominantly to terrestrial biodiversity.

Impacts on water environments are more complex as they often require consideration of additional factors including water flow, connectivity of

aquatic habitats, water pollution, downstream impacts, impacts on other aquatic users and geomorphology of the area.

For aquatic biodiversity, the policy and FBA refers to the [Fisheries NSW policy and guidelines](#) for guidance on addressing aquatic impacts and offsetting.

It is recognised that wetlands and saline vegetation can contain components of both aquatic and terrestrial biodiversity. To ensure there is clarity as to what guidelines need to be used to address these impacts, the following applies:

- saline wetland vegetation formations must be assessed according to the Fisheries NSW policy and guidelines. This includes plant community types such as coastal saltmarsh, mangroves and seagrasses.
- all other (non-saline) wetlands and riparian vegetation will be assessed under the FBA.

Avoidance and minimisation of impacts on aquatic habitats and their associated biodiversity may require further consideration by the consent authority which will need to weigh these impacts against the social and economic benefits of a project.

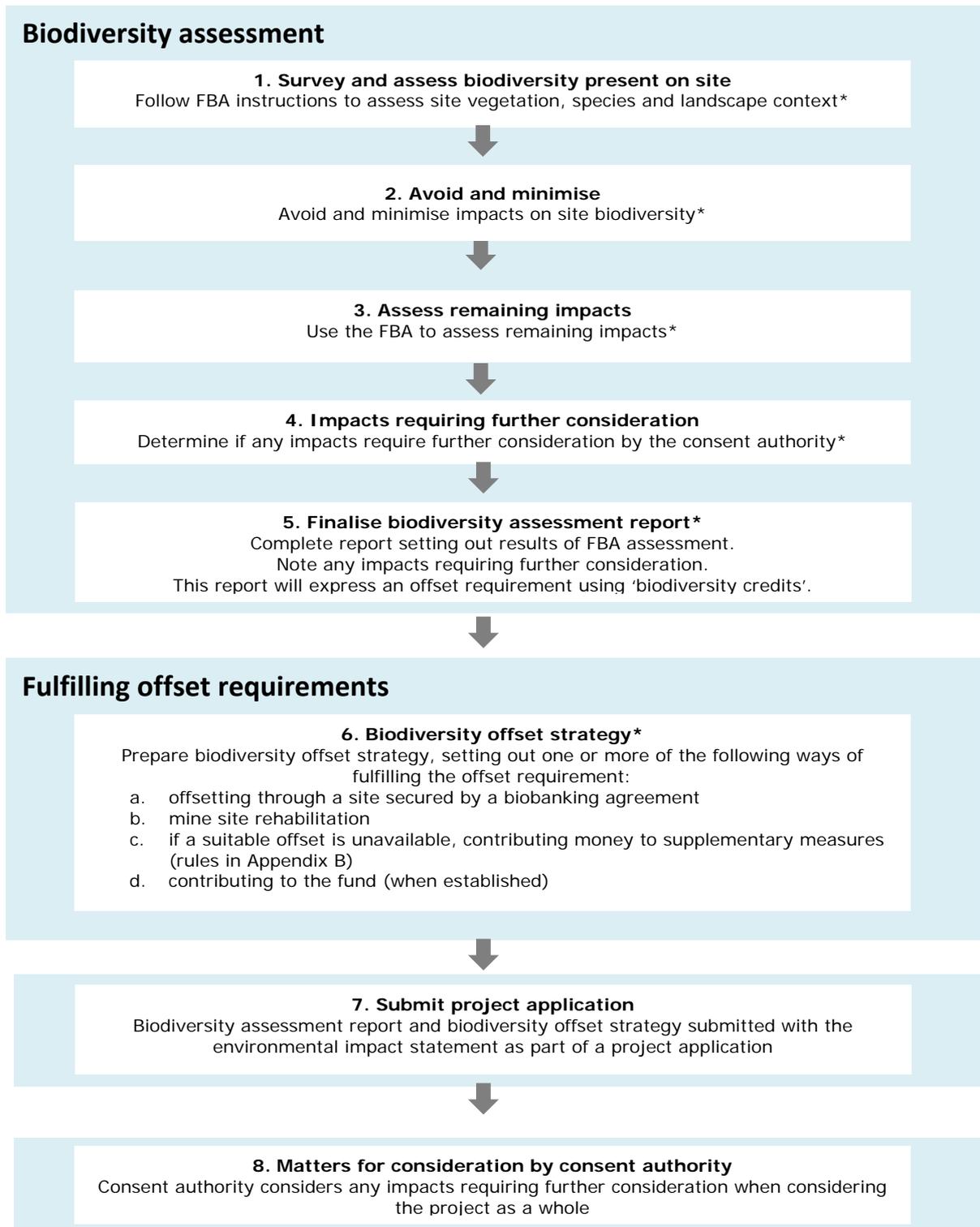
With regard to aquatic biodiversity offset requirements, the [Fisheries NSW policy and guidelines](#) will classify the habitat types being offset. It will then apply a ratio and dollar value to determine the total dollar value of the offset required to be implemented by the proponent via on-ground protection or rehabilitation works, or placed into the aquatic biodiversity offset fund. The proponent will have the opportunity to reduce this cost through direct negotiation with Fisheries NSW, subject to meeting the minimum overall offset ratio requirements.

An outline of the aquatic biodiversity assessment and offset process can be found in [Fact Sheet: Aquatic Biodiversity](#).

How the policy will work

The proponent will engage accredited ecological consultants to apply the FBA and to assess aquatic offsets (where relevant). The assessment process is summarised below and described in more detail on the following pages.

Figure 1: Biodiversity assessment and biodiversity offset strategy



*Note: For likely impacts to aquatic biodiversity, also refer to the Fisheries NSW policy and guidelines

Biodiversity assessment

1. Survey and assess biodiversity present at the site

The FBA provides clear and repeatable instructions for assessing vegetation and species present at a site and the landscape context of this biodiversity. These include instructions for ecological consultants to:

- map the different types of vegetation that occur on the development site
- assess the quality of the vegetation
- determine the landscape context of the site, including whether any biodiversity corridors are on or near the site
- determine what individual threatened species or populations may be present.

The Fisheries NSW policy and guidelines provide guidance for mapping and classifying aquatic habitats present for the purposes of impact assessment and offsetting.

2. Avoiding and minimising impacts

Project proposals must consider all reasonable measures to avoid and minimise impacts on biodiversity before considering offsetting them (see Principle 1). The FBA and Fisheries NSW policy and guidelines provide instructions for avoiding and minimising impacts on biodiversity. Avoidance may involve locating a project in an area that contains biodiversity in low condition instead of in an area of high biodiversity value. Minimisation measures may include using construction techniques that minimise damage to native vegetation or timing clearing to occur when migratory species are absent from a site.

Proponents, through their ecological consultants, will need to explain why impacts cannot be avoided or minimised further. It is recommended that early advice be sought from the consent authority and OEH or Fisheries NSW to ensure that a proponent's endeavours to avoid and minimise will be considered adequate. The consent authority will formally assess the rigour of these explanations when the biodiversity assessment report is submitted with the environmental impact statement.

3. Assessing remaining impacts

The FBA provides transparent and repeatable instructions for assessing a project's impacts on biodiversity that cannot be avoided or minimised. These include instructions for ecological consultants to:

- assess the change in extent and quality of the vegetation due to the proposed impact
- determine how the impact will affect the landscape context, including whether any biodiversity corridors will be affected
- determine the impact on any individual threatened species or populations.

4. Impacts requiring further consideration

Decision thresholds

How the remaining unavoidable impacts can be dealt with by the proponent and the level of intervention by the consent authority can be described as follows (note these thresholds only apply to terrestrial biodiversity, not aquatic biodiversity):

- Offset not required:
 - vegetation below a certain condition level
 - vegetation that is not an endangered ecological community, critically endangered community or habitat for a threatened species or population.
- Offset required:
 - threatened species, populations, ecological communities and their habitat (provided the ecological community or habitat is above the condition level that does not require an offset).
- Further consideration by the consent authority required:
 - impacts adjacent to important rivers and wetlands
 - impacts that will prevent species movement along important mapped corridors
 - impacts on critically endangered species and ecological communities
 - impacts likely to cause the extinction or significantly reduce the viability of a threatened species, population or ecological community within an IBRA subregion
 - impacts on critical habitat declared by the Minister for the Environment under the *Threatened Species Conservation Act 1995*.

Impacts requiring further consideration

As outlined above, most offset requirements can be determined by a proponent before they submit a development application. Some impacts will, however, require further consideration by the consent authority.

These are impacts that may be considered severe enough to prevent a project going ahead. The prima facie position for these impacts is that a project should not proceed if they are likely to occur. The purpose of further consideration by the consent authority is to determine if there may be other factors that could allow the project to proceed. These other factors may include viewing the project holistically in the context of its overall social and economic benefits and considering if the impact can be appropriately ameliorated through additional conservation measures. In undertaking these considerations, the consent authority may also consider what modifications, additional actions or offsets may be required of the proponent in respect of that impact.

Proponents should consult with the consent authority where a proposed project will result in an impact that requires further consideration. Further consideration of these impacts will be undertaken by the consent authority with relevant advice provided by agencies such as OEH or Fisheries NSW.

The consent authority may make any of the following recommendations regarding such impacts:

- the project cannot proceed with that particular impact in place
- the project will need to be modified to reduce the impact before it can proceed
- the project can proceed with additional offsets, supplementary measures or other actions to be undertaken to mitigate the impact.

Transitional implementation

The FBA further defines the impacts that require further consideration. It is recognised these definitions, particularly those relating to threatened species and ecological communities, currently involve quite blunt thresholds that may in some cases capture too many impacts (e.g. a critically endangered entity with broad distribution) and in other cases not capture all severe impacts that should undergo further consideration.

To provide additional certainty to proponents around these impacts, work will be undertaken to develop a schedule of impacts on threatened species and ecological communities in each subregion that will require further consideration. It is also proposed that work on the schedule will include further guidance around how certain critically endangered entities with broad distributions will trigger the threshold. This could include guidance on important areas within a critically endangered species' distribution that will trigger the threshold, rather than the entire distribution of their habitat. This schedule will be developed during the transitional implementation phase of the policy.

In the interim, in addition to the definitions in the FBA, impacts that will require further consideration may be identified or clarified in Secretary's Environmental Assessment Requirements (SEARs) to provide additional certainty to proponents for their projects.

5. Finalise biodiversity assessment report

The results of the assessment will be documented in a biodiversity assessment report which will be submitted to the Department of Planning and Environment as part of the application for project approval.

The biodiversity assessment report sets out the results of the biodiversity impact assessment, including:

- ways in which impacts on the development site's biodiversity values will be avoided or minimised at each stage
- reasons why impacts cannot be further avoided or minimised
- any impacts that require further consideration by the consent authority
- the project's offset requirement in terms of a specific number and type of biodiversity credits for terrestrial biodiversity, or ratio and dollars for aquatic biodiversity.

Fulfilling offset requirements

Once the biodiversity assessment report has been developed, the ecological consultants will prepare a biodiversity offset strategy, which will set out the proposal for meeting the project's offset requirement.

6. Biodiversity offset strategy

Proponents will generally have to secure offsets before development commences. If they wish to secure the offset after development commences, they must enter into a voluntary planning agreement prior to the granting of project approval, requiring the offset requirement to be carried out. This will involve the proponent providing security to ensure the offset requirement is fulfilled. This ensures both the security of offset arrangements and some flexibility for proponents.

In order to reduce the risk of offsets not being able to be located for rare or important entities, it will generally be a requirement that offsets for impacts categorised as 'impacts requiring further consideration' be located and secured prior to the impact occurring (where that impact will be approved).

Transitional implementation

Work will be undertaken to further refine the definition of 'impacts requiring further consideration' during the transitional period. Given this, there will be some flexibility to the above requirement that offsets for these impacts be secured before the impact occurring during the transitional period. A consent authority may decide this is not a requirement where it can be demonstrated that the prospect of finding an appropriate offset is high. This will be considered by the consent authority when undertaking further consideration around these impacts.

Proponents can meet their offset requirements through one or a combination of the following possible offset options, which they will detail in the biodiversity offset strategy:

a. Offsetting through a site secured by a biobanking agreement

Like-for-like offsets

Biobanking agreements specify the number and type of biodiversity credits generated through the landowner's management actions. The proponent purchases the number and type of biodiversity credits required to compensate for the loss of biodiversity on the development site and then 'retires' those credits. Retiring credits involves removing them from the market so they cannot be traded against another impact on biodiversity.

Proponents will also have the option of establishing a biobank site on their own land to fulfil their offset requirement.

Variations

Where a proponent is unable to locate a suitable like-for-like offset site they may apply the FBA variation rules (outlined in section 1 of Appendix A). Note, however, that variation rules do not apply to critically endangered species and communities or to those threatened species and ecological communities that are considered nationally significant under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*.

Aquatic offset sites are secured via mechanisms outlined in the Fisheries NSW policy and guidelines.

b. Rehabilitation of mine sites

Biodiversity credits can also be generated through rehabilitation of a mine site. Rehabilitation involves restoring biodiversity values on mine sites after mining activities have ceased.

Under the policy, proponents will need to return a recognisable plant community to the site in order to generate biodiversity credits.

The method for calculating the contribution of rehabilitation to an offset requirement recognises that full ecological restoration of a site may not be possible. It also recognises that biodiversity gain achieved through rehabilitation often occurs much more slowly than biodiversity gain at an offset site.

Upfront credits

Proponents will receive upfront credits for a certain amount of rehabilitation. The amount of credits essentially represents the gain in biodiversity that would be expected at a highly disturbed site. This equates to around half the credits per hectare that can be generated at a typical biobank site (that already has ecosystem processes established and can therefore be improved more readily).

The proponent will commit to undertaking the amount of rehabilitation equivalent to those credits. This commitment will be reflected in the mining operations plan, which will form part of the mining lease that will apply to the mine (entered into after development consent is granted). Under the mining operations plan, the proponent will also be required to pay a bond equivalent to the cost of undertaking the rehabilitation. Further details on mining operations plan requirements are provided at Appendix D.

Further credits

Once the proponent has achieved a level of rehabilitation representing the credits that were provided upfront, the bond will be returned. At that point, for further improvements to biodiversity at that site can be recognised through the proponent setting up a biobanking agreement over the land and undertaking management actions to generate credits that can be sold or used in the future

c. Contributing money to supplementary measures

If appropriate offsets are not feasible, proponents can provide funds for supplementary measures. The rules governing the determination and use of supplementary measures are detailed at Appendix B.

d. Establishing a fund

The establishment of an offsets fund will provide another option for fulfilling offset requirements. The fund will be developed during the transitional implementation period. It will allow a proponent to pay a monetary amount and then a fund program manager will locate and secure appropriate offsets.

Until the fund is developed, proponents will need to continue to source their own offsets.

A fund for aquatic offsets is already established under the *Fisheries Management Act 1994*. It is intended that the role of this fund will be expanded so it has the ability to strategically purchase aquatic offsets.

7. Submitting the project application

Both the biodiversity assessment report and biodiversity offset strategy will be submitted to the Department of Planning and Environment as part of the application for development consent.

If there are no impacts that require further consideration by the consent authority, and the report and strategy have been completed in accordance with this policy, it is likely that no further consideration will need to be given to the biodiversity impacts of the project unless there are impacts on biodiversity that are out of scope.

8. Matters for consideration by consent authority

Impacts requiring further consideration

Offsets for impacts requiring further consideration will not be able to be finalised in the biodiversity offset strategy prior to submitting the development application, as the consent authority will need to consider these impacts in their decision-making process.

If a project is likely to have an impact requiring further consideration, early contact with the consent authority and OEH or Fisheries NSW is recommended.

Appendix A: Further details

1. Offset like-for-like and variation rules

Like-for-like offsets

Offsets that are like-for-like are defined under the policy as:

- **impacts on vegetation** are to be offset with vegetation that is in the same locality as the impact and is:
 - the same plant community type (vegetation in NSW is divided into around 1500 plant community types),¹ or
 - a plant community type in the same vegetation class (vegetation in NSW is divided into 99 vegetation classes)² that has undergone a similar or greater amount of clearing since European inhabitation
- **impacts on threatened species** (that are not associated with a particular plant community type) must be offset with the same threatened species, not constrained by locality.

Variation rules

Where a proponent can adequately demonstrate that they have been unable to locate a suitable like-for-like offset after undertaking reasonable steps, the variation rules (outlined in more detail in the FBA) allow:

- **impacts on vegetation** to be offset with vegetation from the same vegetation formation (vegetation in NSW is divided into 16 formations),³ that has undergone an equal or greater amount of clearing since European inhabitation
- **impacts on species** (that are not associated with a plant community type) to be offset with species:
 - for fauna species, in the same order that uses similar habitat to the species impacted
 - for flora species, in the same family and with the same life-form (i.e. tree, shrub, orchid etc) as the species impacted
 - in the same locality, and
 - that is under the same or greater level of threat (e.g. if the species impacted is listed as vulnerable, the species in the offset needs to be listed as vulnerable, endangered or critically endangered under the *Threatened Species Conservation Act 1995*).

For aquatic biodiversity, offset sites can include the same habitat or a similar habitat in the same catchment that is more threatened than the habitat impacted.

¹ For more information, see OEH webpage on 'Vegetation Information System: Classification' at www.environment.nsw.gov.au/research/Visclassification.htm

² For more information, see OEH webpage on 'Vegetation Information System: Classification' at www.environment.nsw.gov.au/research/Visclassification.htm

³ For more information, see OEH webpage on 'Vegetation Information System: Classification' at www.environment.nsw.gov.au/research/Visclassification.htm

Further guidance on the like-for-like and variation requirements is contained in the FBA and, for aquatic biodiversity, [Fisheries NSW Policy and Guidelines for Fish Habitat Conservation and Management](#) (Fisheries NSW policy and guidelines).

2. Reasonable steps to locate like-for-like offsets

Reasonable steps to locate like-for-like offsets include, in addition to consideration of any feasible sites known to the proponent:

- checking the biobanking public register and having an expression of interest for credits on it for at least six months
- liaising with an OEH office (or Fisheries NSW office for aquatic biodiversity) and relevant local councils to obtain a list of potential sites that meet the requirements for offsetting
- considering properties for sale in the required area
- providing evidence of why offset sites are not feasible – suitable evidence may include:
 - the unwillingness of a landowner to sell or establish a biobank site
 - the cost of an offset site itself should not be a factor unless it can be demonstrated the landowner is charging significantly above market rates.

3. Criteria for suitable offset mechanisms

The following criteria set out the required elements of an offset site that ensure that actual gains to biodiversity will be achieved.

- a. The principal objective of ongoing site management is biodiversity conservation.
- b. Management actions are undertaken in accordance with a plan of management.
- c. There is reasonable likelihood that sufficient resources will be available to implement the plan of management over time.
- d. There are appropriate accountability mechanisms in place to secure the outcomes, and these mechanisms cannot be altered without alternative and comparable offsetting arrangements being put in place.
- e. The arrangements are in perpetuity and conservation obligations are transparently transferred and disclosed to any new owners of the land through appropriate administrative procedures.

Note that, that due to the special circumstances that exist for aquatic biodiversity offsets, which are largely located on public land, in-perpetuity offsetting mechanisms (criterion e) will not be considered necessary in all circumstances.

Appendix B: Supplementary measures

Using supplementary measures

Supplementary measures can only be used in lieu of offsets when offsets are not feasible and other options are needed.

It is recognised that land with similar biodiversity values to those lost is not always available for use as an offset site. In these circumstances, supplementary measures may be proposed as part of a biodiversity offset strategy.

Before considering the use of supplementary measures, a proponent must demonstrate that all reasonable steps have been taken to locate appropriate offset sites (what constitutes reasonable steps is outlined in section 2 of Appendix A).

Supplementary measures will usually be used in combination with an offset site. For example, most of a proponent's offset requirement may be fulfilled by purchasing and retiring biodiversity credits generated at an offset site. The remaining biodiversity credits required may be for a particular species, for which an offset site cannot be found. A supplementary measure involving actions to benefit that species could then be proposed in the biodiversity offset strategy to fulfil the remaining offset requirement.

Calculating supplementary measures

For aquatic biodiversity, supplementary measure contributions will be calculated using the [Fisheries NSW policy and guidelines](#).

Supplementary measures for land-based offsets are calculated as a financial contribution no cheaper than the cost of a proponent purchasing a relevant offset site. In this way there is no financial advantage in undertaking supplementary measures. The number and type of biodiversity credits required to offset the development will inform this calculation. The calculated financial contribution is then used to fund the supplementary measure.

When the fund is developed, it is intended this amount will be determined using the same method that will be used to calculate a proponent's financial contribution to the fund (for terrestrial biodiversity).

Transitional implementation – interim calculation method

Until the fund is developed, an interim method for calculating the monetary contribution for supplementary measures will be used. The interim method will involve calculating the cost of supplementary measures based on the cost of securing offset sites or purchasing biodiversity credits to offset the rest of the development. This will involve the proponent looking at:

- the cost of other offsets that it has purchased for the project (and adding 10% to represent the real administrative cost of purchasing offsets)
- the proportion of credits remaining to be fulfilled through supplementary measures.

The reason for adding 10% to reflect administrative costs is that simply looking at the purchase cost of an offset fails to consider the additional time and money that is involved in arranging the purchase of or setting up an offset. Furthermore, when the fund is established, the method for calculating monetary deposits will include a component to cover the

administrative costs of the fund arranging the purchase of or setting up offsets. Including the 10% will ensure supplementary measures are not the cheaper option and will increase consistency with future fund calculations.

Supplementary measures contributions will be calculated using the following formulas:

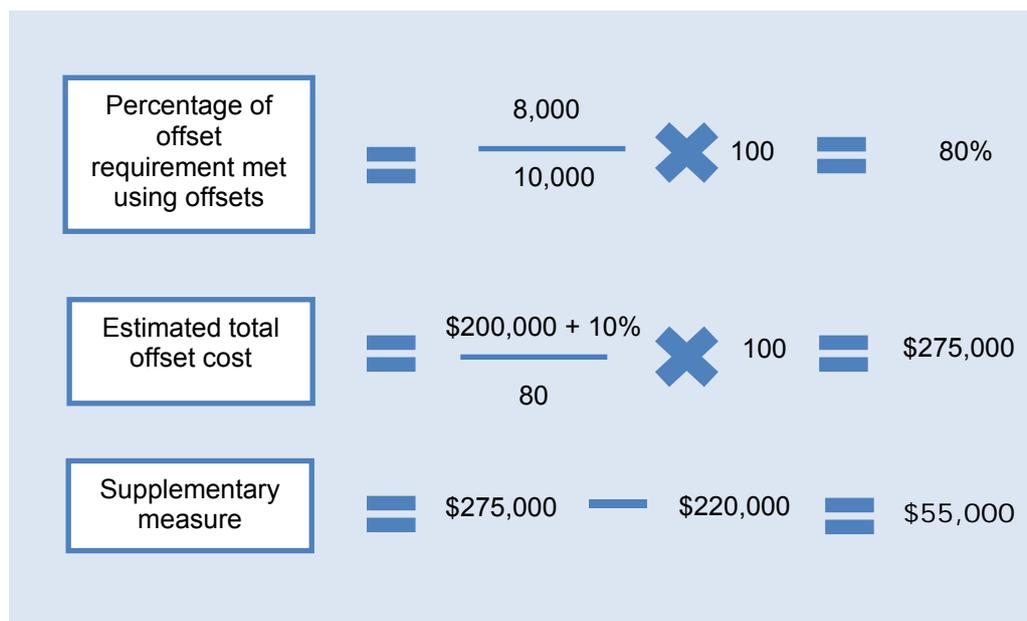
$$\begin{array}{l}
 \boxed{\text{Percentage of offset requirement met using offsets}} = \frac{\text{Total number of credits secured}}{\text{Total number of credits required for the development}} \times 100 \\
 \\
 \boxed{\text{Estimated total offset cost}} = \frac{\text{Amount paid for secured credits + 10\% (to reflect administrative costs)}}{\text{Percentage of offset requirement met using offsets}} \times 100 \\
 \\
 \boxed{\text{Supplementary measure}} = \boxed{\text{Estimated total offset cost}} - \boxed{\text{Amount paid for secured credits + 10\%}}
 \end{array}$$

The 'Amount paid for secured credits' should be calculated as follows:

- for **credits purchased on the market**, the amount paid for secured credits is the biodiversity credit purchase price (this includes both the Part A payment made to the Biobank Trust Fund and the Part B payment made to the landholder)
- for **credits generated from a biobank site established by the proponent**, the amount paid for the credits generated on that site should be calculated based on the total fund deposit stated in the biobanking agreement (this represents the cost of in-perpetuity management) and the land value of the site.
 - The land value should be calculated based on the purchase price of the property if it has been purchased in the last five years or based on a land valuation by the Valuer General if it was purchased more than five years ago. If the biobank site does not cover the whole property, the land value of the biobank site can be calculated on a pro rata basis.

Example

For example, a proponent has a development with an offset requirement of 10,000 credits. The proponent has secured 8,000 credits for \$200,000 and is proposing to meet the remaining 2,000 credits by funding supplementary measures. In this scenario, the cost would be calculated as:



In the very unlikely event that a proponent needs to meet the entire offset requirement for a development through supplementary measures, the proponent must negotiate the amount to be spent on supplementary measures with the consent authority, with the advice of OEH.

Note that the calculations outlined above are intended as a guide that reflects the Government's policy position that supplementary measures should cost no less than the cost of securing an offset (or purchasing biodiversity credits). The final amount a proponent will need to contribute to supplementary measures will be at the discretion of the consent authority and may depend on the individual circumstances of a project or offset requirement. This discretion may involve factoring in if the offset (or biodiversity credits) that will be purchased represents a likely cheaper portion of the entire offset. If this is the case, the proportion of the offset to be fulfilled using supplementary measures will be appropriately weighted in terms of cost to ensure it reflects the true cost of that portion of the offset requirement.

Rules governing supplementary measures

Proponents must follow a number of rules in the determination and use of supplementary measures. These rules are intended as guidance only. The final decision on the appropriateness of proposed supplementary measures will be made by the consent authority.

Supplementary measures are a last resort

1. Proponents must first seek to fulfil their obligations through offsets. Proponents must demonstrate to the satisfaction of the consent authority that all reasonable steps have been taken to locate a suitable offset. Only then may a proponent proceed to using supplementary measures. Reasonable steps are outlined in section 1 of Appendix A.

Like-for-like offsets

Proponents must undertake reasonable steps to locate like-for-like offsets before applying supplementary measures.

Offset variation rules or supplementary measures

The proponent then has the option to either apply the offset variation rules to locate an appropriate offset from a broader suite of options or use supplementary measures.

The policy recognises that, on some occasions, it may be more beneficial to undertake a supplementary measure that is directly related to the species or ecological community impacted, rather than using the variation rules to offset the impact with another species or ecological community.

When an appropriate like-for-like supplementary measure (that is tier 1 supplementary measures – see further description below) is available, a proponent may use this, rather than offsetting with another species or ecological community under the variation rules. Further guidance is provided in the FBA. Also see the decision flow diagram at Attachment C.

2. A proponent may use a combination of offset sites and supplementary measures to fulfil an offset requirement. In fact, it will be a rare case in which a proponent will use supplementary measures to fulfil their entire offset requirement.

Calculating supplementary measures

3. The amount of money to be put towards a supplementary measure must be calculated using the fund calculator (when it is developed) or, for aquatic biodiversity, the Fisheries NSW policy and guidelines. This is to ensure that any financial contribution used to fund the cost of management at an offset site is equivalent to the cost of implementing a supplementary measure. Prior to the fund calculator being developed, supplementary measures (for terrestrial biodiversity) will be determined by the interim method outlined above.
4. The financial contribution is calculated based on the proportion of the entire offset requirement that needs to be met through supplementary measures. For example, if a proponent has already purchased and retired a certain number of biodiversity credits to fulfil a portion of the offset requirement, only the remaining biodiversity credit requirement will be used to calculate the contribution to supplementary measures.
5. The calculations used to derive the financial contribution for any supplementary measures must be set out in the biodiversity offset strategy and included as part of the application for project approval.

Hierarchy of supplementary measures

6. A hierarchy of supplementary measures has been established, ranging from tier 1 (the preferred measure) to tier 4 (the least preferred measure). Proponents must follow the four-tier decision hierarchy when the use of supplementary measures is proposed as part of a biodiversity offset strategy. See further details on the four tiers below.
7. Before moving through each tier, proponents will need to demonstrate that all reasonable steps have been taken to locate an appropriate measure at that level. This evidence includes providing information on management actions considered at each level, for example, from the *Saving Our Species* program, from plans of management, and in consultation with OEH or Fisheries NSW.

Implementing supplementary measures

8. Proponents must enter a voluntary planning agreement with the Department of Planning and Environment to implement a supplementary measure. The voluntary planning agreement will include requirements for monitoring and reporting, along with security (e.g. bond, bank guarantee or equivalent) to ensure the supplementary measures are completed. The details of the voluntary planning agreement will be determined by the Department of Planning and Environment with advice from OEH or Fisheries NSW.

Identifying appropriate supplementary measures

9. Where a matter listed under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* is significantly impacted by a proposal and requires offsetting, supplementary measures cannot be directed beyond tier 1.
10. Contribution of money to research, survey and community education programs will be capped at 10% of the total offset (i.e. 10% of the total cost of the offset as determined by the Fund Calculator – or the interim guidelines until the Fund Calculator is developed – or the Fisheries NSW Policy and Guidelines – see *Fact sheet: Aquatic biodiversity*). This is consistent with Australian Government policy. More than 10% may be contributed in exceptional circumstances where it can be justified that research, survey or education is critical for the survival of a threatened species. This will need to be supported by advice from OEH/Fisheries NSW.
11. The proponent must consult with OEH and/or Fisheries NSW to identify the supplementary measures suitable for a species.
12. The appropriateness of proposed supplementary measures will be determined by the consent authority on a case-by-case basis with advice from OEH and/or Fisheries NSW.
13. The proponent must justify that the supplementary measure chosen will provide value for money in terms of maximising biodiversity outcomes for the resources contributed.
14. The supplementary measure proposal must be accompanied by scientific evidence that the measure is likely to lead to long-term benefits to biodiversity or evidence that it is in accordance with best practice techniques or guidelines.
15. The supplementary measure must be undertaken in a transparent and timely manner and should preferably commence before, or in conjunction with, the development impact.
16. There must be suitable arrangements in place for monitoring and reporting on the progress of the measure.
17. Supplementary measures will be delivered by a suitably qualified or experienced individual or organisation in a manner approved by the consent authority.
18. The supplementary measure must be additional to other legal offset requirements.

Supplementary measures tiers

The decision hierarchy for the four tiers of supplementary measures is described below.

Tier 1 – Actions directed to the entity impacted

Tier 1 supplementary measures are actions that are directed to providing biodiversity outcomes for the threatened species, population, ecological community or habitat that is impacted on by the project.

Supplementary measures proposed to fulfil the offset requirement for a species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, or as critically endangered under the TSC Act, are restricted to Tier 1 supplementary measures.

Tier 2 – Actions directed to similar entities in the locality

Tier 2 supplementary measures are actions that are directed to entities related to those impacted in accordance with the offset variation rules outlined in the FBA and summarised in section 1 of Appendix A.

Tiers 3 and 4 – Actions to benefit broader threatened entities

Tier 3 and Tier 4 supplementary measures are directed to any listed threatened species, population or ecological community or aquatic habitat. A Tier 3 action must be undertaken in the IBRA subregion (or catchment for aquatic biodiversity) in which the development occurs, while a Tier 4 action can occur anywhere in NSW.

Determining appropriate actions

For determining actions to meet any of these tiers, it is recommended that proponents look to actions identified in:

- the NSW Priorities Action Statements under the *Threatened Species Conservation Act 1995* (TSC Act) and *Fisheries Management Act 1994* (FM Act)
- a relevant Commonwealth/OEH/Fisheries NSW approved recovery plan, threat abatement plan, management plan or listing document.

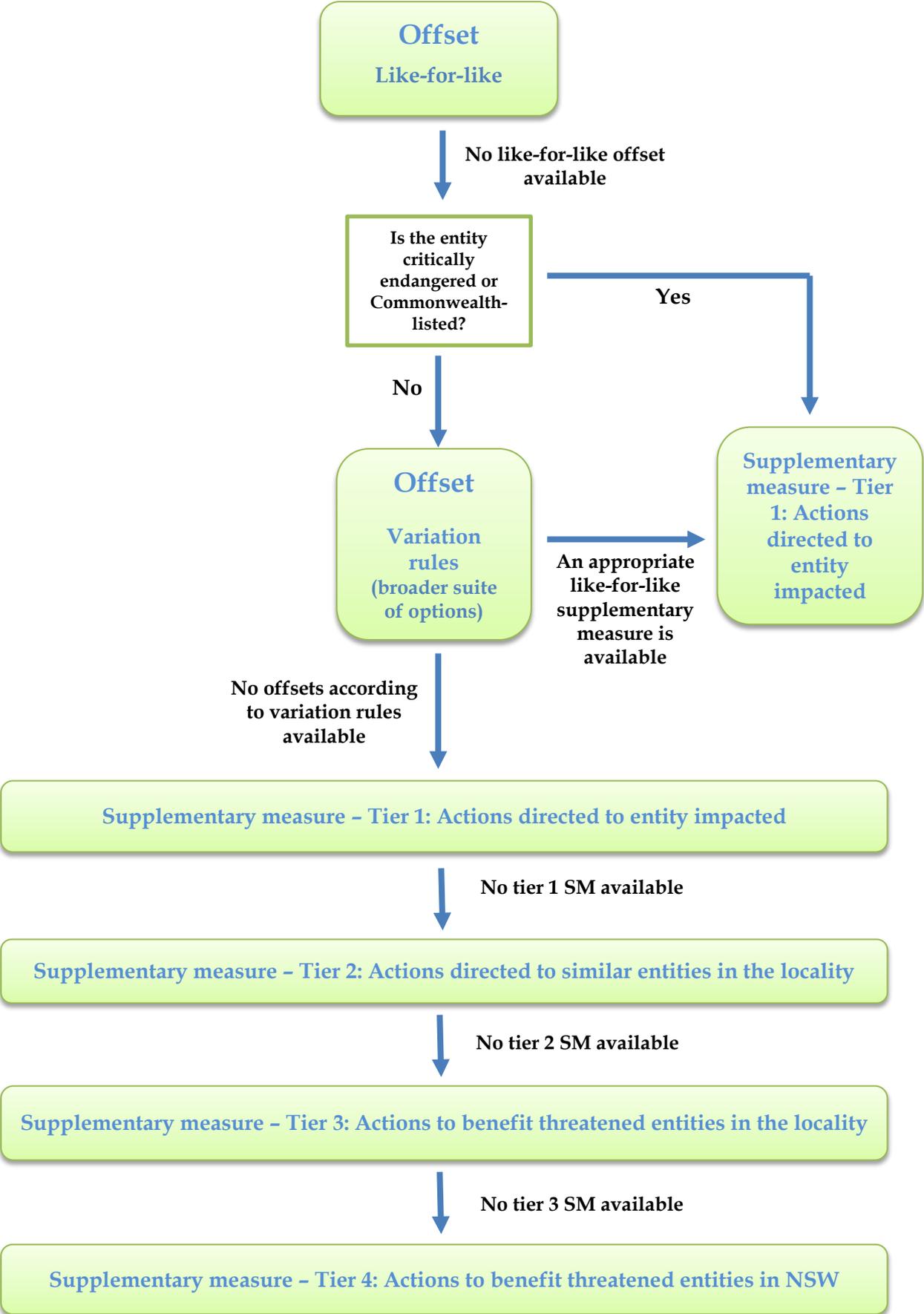
The Priorities Action Statements under the TSC Act and FM Act are the NSW Government's main tools for promoting recovery of the more than 1,000 threatened species, populations and communities that live in NSW. They set out actions that are required for recovery of these entities.

For species listed under the TSC Act, the associated *Saving our Species* program applies. The *Saving our Species* conservation projects database (visit www.environment.nsw.gov.au/savingourspeciesapp) contains a list of management and monitoring actions under conservation projects that have been developed by a panel of scientific experts and have been assessed for cost, benefit and feasibility. Contributing to *Saving Our Species* actions is likely to be an effective and scientifically robust option for delivering supplementary measures.

Supplementary measures can be directed to activities other than those outlined in threatened species recovery plans if it can be demonstrated it

will lead to a benefit to a relevant species (depending on the tier) and will meet the other rules for supplementary measures outlined above. This could include, for example, work involved in rehabilitating a derelict mine site, provided it will provide value for money in terms of maximising biodiversity outcomes and meet the other rules described above.

Appendix C: Decision flow diagram



Appendix D: Mining operations plan

Rehabilitation of mined land must be undertaken in accordance with a mining operations plan (MOP) (or equivalent document) as regulated by the Department of Trade and Investment – Division of Resources and Energy under the *Mining Act 1992*. The MOP provides the function of both a rehabilitation plan and a mine closure plan. The area of land to be rehabilitated and the standard of rehabilitation to be achieved must be specified in the MOP for the mine site. The area of land, stated objectives and the standard of rehabilitation must be consistent with, and address all the conditions of consent that relate to the ecological rehabilitation of mined land as part of the approval for the major project.

The MOP must:

- set out the rehabilitation objectives for the site that clearly describe the rehabilitation outcomes required to achieve the post mining land use
- map and identify the domains within the mine site where ecological rehabilitation is the primary post mining land use goal
- describe the specific ecological rehabilitation objectives and completion/relinquishment criteria that apply to these domains. This must include the rehabilitation objectives for each plant community type to be rehabilitated within the domain.
- identify the applicable rehabilitation phases to achieve the desired rehabilitation objectives
- identify the performance indicators of the biophysical environment that are to be used to reliably measure progress towards the completion/relinquishment criteria over time
- specify the completion/relinquishment criteria for each domain to quantitatively demonstrate rehabilitation success, i.e. when a phase of rehabilitation is complete, *or*, when total rehabilitation is complete

The objectives and completion/relinquishment criteria in the MOP must be consistent with those specified in the biodiversity offset strategy for the project.

Monitoring and enforcement

NSW Division of Minerals and Energy monitors progress towards achievement of rehabilitation objectives and completion/relinquishment criteria as specified in the MOP.

If rehabilitation standard is not achieved

If, once rehabilitation is underway, it becomes clear that the ecological rehabilitation standard for which biodiversity credits have been generated is not able to be achieved, the company must instead source and retire an equivalent number and type of biodiversity credits in order to meet its offset requirement. Agreement must be reached between the company and NSW Minerals and Energy that the objectives and completion/relinquishment criteria are unable to be achieved. In this situation new objectives and completion/relinquishment criteria will be negotiated to a lower standard to allow lease relinquishment.

Security bond

The NSW Government requires companies holding titles under the *Mining Act 1992* to lodge security bonds to ensure that the cost of rehabilitation of mined land will be met by the miner. The monetary amount of the security bond must be sufficient to cover the cost of undertaking the works to achieve the specified rehabilitation standard. Where ecological rehabilitation has been used to contribute to an offset requirement the security bond must be sufficient to establish self-sustaining and recognisable plant community types. If the mining company becomes insolvent, the bond ensures that sufficient money is available for the rehabilitation works to be completed.