

No net loss guidelines

A guide for achieving biodiversity
offsets and conservation measures

November 2024



bren



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Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Document control

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Versions

Version	Date	Amendment notes
1.0	Jul 2022	First issue
1.1	Aug 2022	Table 3-1 revised to add moderate to good to fauna habitat offset requirement
2.0	Dec 2022	Update to reflect changes to the Biodiversity Conservation Trust’s new payment system plus two new resources (8 and 9)
3.0	Oct 2023	Update to clarify wording of offset threshold B1 in Table 3-1 and provide additional advice on BCF Charge System (edits to Section 2.1 and 4.2), credit purchase (edits to Section 4.3) and Transport Biobank operations (edits to Section 4.3.1 and a new Chapter 6). Addition of two new resources; Resource 10 (Transport Biobank credit transfer application) and Resource 11 (Transport Biobank credits available). Slight wording clarifications made throughout.
4.0	Nov 2024	Updates to Section 3.2.2 to better explain the process of calculating credit requirements triggered by Transport Biodiversity Policy, Additions to Section 4.3 to reference the Property Acquisition Process (IP-0046-PS01) and the Procedure for using PIMs to undertake credit transactions. Additions to 4.4 to recognize recent changes to the NSW National Parks and Wildlife Service’s ‘Revocation, recategorization and road adjustment policy’ and updates to Agency names throughout.

Related policy and supporting information

- [Transport Environment and Sustainability Policy](#)
- [Environment & Sustainability Management Framework](#)
- [Transport Biodiversity Policy](#)
- [EMF-BD-GD-0010Biodiversity Assessment Guidelines](#)
- [Residue land biodiversity credit procedure](#) (available from Land Divestment, Property)
- [Selling Biodiversity Credits to Transport fact sheet](#) for landholders.
- [Procedure for using PIMs to undertake biodiversity transactions](#)
- IP-0046-PS01 [Property Acquisition Process Appendix L](#) Biodiversity credit acquisitions
- For resources supporting this document refer Section 1.4

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1. Introduction

1.1 Purpose

The Guideline has been developed to assist Transport for NSW (TfNSW) in meeting its sustainability goal of achieving no net loss in biodiversity as a result of our activities and to meet our legislative obligations for biodiversity offsetting.

1.2 Scope

These Guidelines have been prepared to support TfNSW in the implementation of statutory or Transport Biodiversity Policy commitments to provide biodiversity offsets and/or conservation measures. Separate guidelines apply where tree and hollow replacement requirements have been triggered [EMF-BD-GD-0129].

Other Transport cluster agencies may find these guidelines helpful in delivering biodiversity offsets and conservation measures.

The land divestment activities of Transport Asset Holding Entity (TAHE) are excluded from the Transport Biodiversity Policy and these guidelines do not apply.

1.3 Objective of these Guidelines

The objective of the Guideline is to assist TfNSW in fulfilling the requirements of the Transport Biodiversity Policy to provide biodiversity offsets and conservation measures through the provision of information and templates.

1.4 Resources

These guidelines are supported by the resources listed at **Table 1-1**.

Table 1-1: Biodiversity Offset Guideline resources

Resource	Title	Description
Resource 1	Biodiversity offset strategy template (BAM trigger)	Prepared by ecological consultants and/or TfNSW staff and details TfNSW proposals for acquitting the offset obligation using the Biodiversity Assessment Method (BAM) where a Biodiversity Development Assessment Report (BDAR) has been prepared
Resource 2	Biodiversity offset strategy template (Policy trigger)	Prepared by ecological consultants and/or TfNSW staff and details TfNSW proposals for acquitting the offset obligation under Transport Biodiversity Policy
Resource 3	Template memo to pay into the BCF	For use when projects are seeking approval to pay into the Biodiversity Conservation Fund (BCF)
Resource 4	Template memo to commence negotiations to purchase credits	For use when projects are seeking approval for Property and Acquisition Teams to commence credit purchase negotiations
Resource 5	Brief to prepare BSA	Used to engage an accredited person to prepare assessments necessary to apply to the Taskforce (a task formerly undertaken by the BCT) to enter a Biodiversity Stewardship Agreement (BSA).
Resource 6	Template memo to retire credits	For use when projects are seeking approval to retire credits

Resource 7	Brief to prepare a Biodiversity Offset Strategy	Used to engage an accredited person to prepare assessments necessary to prepare a Biodiversity Offset Strategy for offset requirements triggered by either the BAM/BDAR or TfNSW Biodiversity Policy
Resource 8	Application for funding from TfNSW Biobank	Used by TfNSW to seek funding for BSA assessments of land where credits may be generated in addition to project needs
Resource 9	Introductory letter for landholders	Used by TfNSW to confirm arrangements with the landholder for Biodiversity Stewardship Agreement investigations
Resource 10	Transport Biobank credit transfer application	Used by TfNSW to sell credits to the Biobank, purchase credits from the Biobank, or allocate (earmark) credits for future use
Resource 11	Transport Biobank credits available	Used by TfNSW to view credits available in the Transport Biobank.

Additional resources relating to the establishment of a BSA on TfNSW residue land are part of the Biodiversity Offsetting on Residue Land Procedure which is from Land Divestment, Property. These resources include template memos for:

- Entering into a BSA on Transport owned residue land.
- Project request for Property Divestment approval to investigate the ecological qualities of Transport owned residue land.
- Project request for Property Divestment approval to enter into a BSA on Transport owned residue land.
- Project request for Property Divestment approval to acquire land for biodiversity offset.
- Project request for Property Divestment approval to dispose of biodiversity offset land to another Agency.

2. Strategic offset planning

The Biodiversity Policy encourages the estimation and acquisition of biodiversity credits as early as possible in the asset infrastructure lifecycle. Early stages of project development provide the best opportunity for TfNSW to demonstrate that impacts have been avoided as far as practicable.

The TfNSW investment gating and assurance guidelines describes the decision making process by which TfNSW prioritises, enables, monitors and reports on infrastructure investment.

To meet the requirements of the Biodiversity Policy, strategic planning processes, including strategic business cases (Gate 1), must include a provisional amount for biodiversity offsets and consider whether a budget allocation is required to implement a forward biodiversity offset acquisition program in advance of environmental impact assessment and project approvals. These considerations are to be included during the preliminary environmental sustainability and planning investigations (PESPI), where prepared. These estimates and requirements should be reviewed and progressed during concept design development for the business case (Gate 2) at which time an Review of Environmental Factors (REF) or Environmental Impact Statement (EIS) is usually being prepared.

2.1 Estimating the cost of future offset requirements

Estimating the cost of future credit requirements poses some significant challenges due to both uncertainty around the nature and extent of future project impacts, and the likely future costs of credits and Biodiversity Conservation Fund (BCF) payments. At a minimum, projects should estimate likely terrestrial ecosystem and species credit costs at the strategic business case stage with estimates for aquatic offsetting included where relevant and in consultation with NSW Department of Primary Industries and Regional Development (DPIRD).

2.1.1 Terrestrial biodiversity offsets

Estimating offset costs requires two steps:

Step 1 – Estimate a credit requirement. For ecosystem credits, early estimates can simply use a ratio of 30 ecosystem credits per hectare of plant community types (PCTs) to be impacted. This will identify the potential PCTs impacted, and provide an indicative number of ecosystem credits required for each. The accuracy of this estimate will be relative to the project assessment stage. Early estimates may need to be based on a desktop assessment of PCTs (e.g. using the [NSW State Vegetation Type Map](#)) and Offset Trading Groups, and a strategic project corridor/boundary (or across multiple route options) to calculate indicative impact areas. Therefore impacts will likely be larger and the PCTs identified may not be accurate without field verification.

As projects progress and more data becomes available, offset estimates will become more accurate. Projects should prioritise the field verification of PCT mapping to improve their credit estimate and revise the impact boundary as the design progresses. Where offset calculations are available for a project, these should be used in lieu of estimates using the 30:1 ratio.

Step 2 – Estimate the cost of the credits. The [Biodiversity Credits Market Sales Dashboard](#) is a searchable tool that allows users to view historical credit sales data and market trends. This tool can be used to estimate the potential cost of purchasing credits from the market. Given the absence of sales data across many credit types, however, the quality of the estimate reduces as other credit types are used as a surrogate for the required credits. To make the best use of available information, it is recommended that credit prices be identified on the [Biodiversity Credits Market Sales Dashboard](#) as following:

1. Use the weighted price average for the same credit and, if not available.
2. Use any weighted price average for the same credit within the Offset Trading Group, and, if not available or not relevant.
3. Use the weighted price average for any ecosystem or species credit in that subregion region; and if not available.
4. Use the weighted price average for any ecosystem or species credit in surrounding subregions until you find a relevant sale.

This approach assumes that it is the location of the credit (rather than the type of credit) that drives credit price. That is, two different ecosystem credit types from the same locality are more likely to be a similar price than the same ecosystem credit type separated by a large geographical distance.

Market data also exists for trades of the older BioBanking credits (see the [BioBanking Credits Sales Dashboard](#)). This market data can be useful for estimating current market value, so long as a conversion factor is applied. TfNSW has observed through our [assessments of reasonable equivalence](#), that on average two Biobanking ecosystem credits is equivalent to one BAM ecosystem credit. Therefore it is recommended that any Biobanking credit prices used to estimate the cost of BAM credits are at minimum doubled.

Estimating the cost of species credits poses some significant challenges and is not reliable unless targeted threatened species survey has been undertaken. As a general guide, a 30% premium may be applied to the estimated cost of ecosystem credits to allow for an indicative cost for species credits.

Please note that since the removal of the Biodiversity Offset Payment Calculator (BOPC) in October 2022, the cost of making a payment to the BCF can only be obtained through a quote from the BCT after determination of the REF or approval of a SSI project and is not available for strategic planning purposes. However, there are several tools available to estimate the cost of a BCF payment prior to applying for a quote. The BCT [publish a quarterly charge report on their website](#) showing all BCF charge quotes six months after they are issued and [also offer a price estimation service for a fee](#) (refer to Section 4.2).

2.1.2 Aquatic biodiversity offsets

Step 1 – Estimate the likely extent of key fish habitat impacted. Early estimates may need to be based on a desktop assessment of aquatic habitats (e.g. using the key fish habitat mapping at [Fisheries NSW Spatial Data Portal](#)) and a strategic project corridor/boundary (or across multiple route options) to calculate indicative impact areas.

Step 2 – Estimate the cost of acquitting the aquatic offset requirement. DPIRD typically require offsetting to be provided at a ratio of 2:1 though further consultation with DPIRD would be required to develop a strategic estimate of future offsetting costs.

The TfNSW Biodiversity Specialists are available to assist projects with estimating forward credit estimates. Projects may also wish to engage a consultant to undertake a strategic offset assessment.

2.2 Early credit acquisition

Early credit acquisition can avoid over-reliance on payments to the BCF, which can be considerably more expensive than other offsetting options. It is important to note that, under the BC Act, projects triggering the Biodiversity Offset Scheme that have a condition relating to retiring biodiversity credits must have met their credit obligations (either through credit retirement or BCF payment) prior to impacts occurring. It is also noted that at the time of writing, NSW Department of Climate Change, Energy, Environment and Water (NSWDCCEEW) are considering possible changes to this requirement.

Early credit acquisition investigations can begin as soon as a credit estimate is undertaken. It is recommended that credits are only purchased based on a credit estimate that involved field surveys to verify PCTs. This is to ensure the correct type of credits are purchased.

Projects that purchase credits that end up being in excess of the project requirements may be able to sell the surplus credits to the Transport Biobank at the cost price in accordance with the Biodiversity Policy.

3. Calculating offset requirements

3.1 Statutory biodiversity offset requirements

A critical part of any project is determining the appropriate planning pathway for the project. This process should include consideration of the biodiversity assessment requirements of the project and any associated offset requirements.

EMF-BD-GD-0010 Biodiversity Assessment Guidelines includes a flowchart (at Figure 2-1) and supporting text to help TfNSW staff clarify the planning process where biodiversity impacts are anticipated. It describes the statutory processes applying to biodiversity assessment and offsetting under the *NSW Biodiversity Conservation Act 2016* (BC Act), *NSW Fisheries Management Act 1994* (FM Act) and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Further detail on the offsetting component of each planning pathway is provided below.

3.1.1 Major projects assessed under Part 5 Division 5.2 of the EP&A Act

For SSI projects, biodiversity assessment requirements are prescribed by the BC Act (Section 7.9) and these requirements will be reflected in project Secretary's Environmental Assessment Requirements (SEARS).

Unless, TfNSW has applied for a Biodiversity Development Assessment Report (BDAR) waiver, the SEARs will require the preparation of a BDAR in accordance with the Biodiversity Assessment Method (BAM) to assess project impacts on terrestrial biodiversity and detail mitigation and offset requirements. The BAM requires the use of the BAM calculator (BAM-C) for calculating offset requirements in the form of biodiversity credits and specific requirements for field survey including vegetation classification and assessment and threatened species survey, all in accordance with specific BAM survey guidelines.

BDARs must be prepared by an Accredited Assessor. A list of Accredited Assessors can be found on the DCCEE website. A BDAR template and standard brief are included as resources in the *EMF-BD-GD-0010 Biodiversity Assessment Guidelines*.

Additional SEARs may also require assessment of impacts to aquatic biodiversity, which are typically assessed via a separate technical report.

The BC Act requires that where a condition of approval requires biodiversity credit retirement (or BCF payment), this must be met before any development is carried out that would impact on biodiversity values (Section 7.14(3)(4)). For this reason, early acquisition of credits is desirable as it avoids over-reliance on the (typically more expensive) BCF mechanism. Staging of credit acquisition with impacts may also be possible to allow more time to meet offset requirements.

A Biodiversity Offset Strategy (BAM trigger) can be prepared either pre or post-project approval and explains how TfNSW will meet its offset requirements (See Resource 1 of this guideline). The BOS will:

- Document the credit requirement in accordance with the Biodiversity Assessment Method (BAM) including, if necessary, any approved modifications or post approval changes in credit requirements.
- Identify permissible variations under the BC Regulation (See **Appendix B**).
- Confirm timing of offset delivery in accordance with approval/determination requirements.
- Determine or estimate the equivalent payment to the BCF, where required, or detail the process of obtaining a quote (see **Section 4.2**).
- Confirm the availability of issued credits with the credit owners including by a public tender process if required (see **Section 4.3**).
- Investigate options of generating credits on TfNSW-owned land (see **Section 4.4**) or through sponsoring private landholders (see **Section 4.5**).
- Identify if any local conservation actions (see **Section 4.6**) may be suitable in accordance with the BC Regulation.

A Biodiversity Offset Strategy (BAM trigger) template is available at Resource 1 of this guideline.

SSI projects may also trigger Transport Biodiversity Policy commitments – see **Section 3.2**.

3.1.2 Projects assessed under Part 5 Division 5.1 of the EP&A Act

Where a significant effect on threatened species or ecological communities is likely, the BC Act requires that a BDAR or Species Impact Statement (SIS) be prepared and exhibited for any REF project. Where the BDAR pathway is chosen, offset requirements must be met prior to project impacts in accordance with Section 7.15(3)(4) of the BC Act. This can include staging project impacts so only a proportion of offsets need to be met prior to each stage. See *EMF-BD-GD-0010 Biodiversity Assessment Guidelines* for further information on BDAR requirements. In most cases, TfNSW would choose the BDAR pathway as it is less administratively complex (e.g., no NSWDCCEEW concurrence requirements).

The BAM must be used to calculate the offset requirement for all residual significant impacts on nationally listed species and ecological communities where the EPBC Act strategic assessment approval applies (road projects only) or when the project is determined to be a controlled action under the EPBC Act (unless the EPBC Act approval indicates otherwise).

REF projects may also trigger Transport Biodiversity Policy commitments – see **Section 3.2**.

3.1.3 Developments under Part 4 of the EP&A Act

Some TfNSW projects require development consent under Part 4 of the EP&A Act. This includes State Significant Development (SSD) and local developments that require consent by a Council or local planning panel under the relevant environmental planning instrument.

All SSD projects must prepare a BDAR in accordance with the BAM and offset impacts accordingly (Section 7.9 BC Act) unless a BDAR waiver has been obtained.

All local developments, including designated developments, must assess whether the proposed development meets any of the statutory thresholds for participation in the Biodiversity Offset Scheme (See Appendix A). This includes any development within coastal wetlands or littoral rainforest mapped under the State Environment Planning Policy (Resilience and Hazards) 2021.

If the development exceeds these thresholds, then the development application must be accompanied by a BDAR prepared by an Accredited Assessor and TfNSW must participate in the Biodiversity Offsets Scheme.

3.2 Transport Biodiversity Policy commitments

In addition to statutory requirements, the Transport Biodiversity Policy makes commitments to address the cumulative impacts of projects that do not formally trigger the NSW Biodiversity Offset Scheme, NSW Fisheries offsets or Commonwealth offset requirements.

The TfNSW biodiversity assessment report (BAR) template for REF projects (Resource 4 of *EMF-BD-GD-0010 Biodiversity Assessment Guidelines*) provides the framework to ensure that ecological consultants address Transport Biodiversity Policy commitments. Where Biodiversity Policy requirements are triggered, an environmental safeguard should be included in the REF that requires the preparation and implementation of Biodiversity Offset Strategy (Policy) (See Resource 2) as part of the implementation of the environmental requirements for the project.

Figure 3-1 describes the process required to ensure Biodiversity Policy commitments are implemented for major projects and REF projects. Variations to this process should be discussed with the TfNSW Biodiversity Specialists or your Lead Environmental Advisor.

3.2.1 Offsetting exemptions

The Biodiversity Policy excludes the following works from the requirement to provide biodiversity offsets under the Biodiversity Policy. These exclusions apply regardless of whether other thresholds listed in **Section 3.2.2** are met:

- Exempt development under the State Environmental Planning Policy (Transport and Infrastructure) 2021.
- Works on cleared land, plantations, exotic vegetation where it is unlikely there are threatened species or habitat present.
- Works within the disturbed zone or to maintain required operational clearances and works within areas that are reasonably likely to naturally regenerate.
- Works involving clearing of vegetation planted as part of an infrastructure corridor landscaping program (this includes where threatened species or species comprising listed ecological communities have been used for landscaping purposes).
- Any project that is legally required to participate in the NSW Biodiversity Offsets Scheme, requires a SIS under the FM Act or BC Act or is likely to have a significant impact on MNES.
- All projects requiring Part 5, Division 5.2 of the EP&A Act approval (SSI, CSSI) and all projects requiring development consent under Part 4 of the EP&A Act.
- Any project approved or determined or where an REF has been exhibited prior to the commencement of the Biodiversity Policy (1 August 2022).

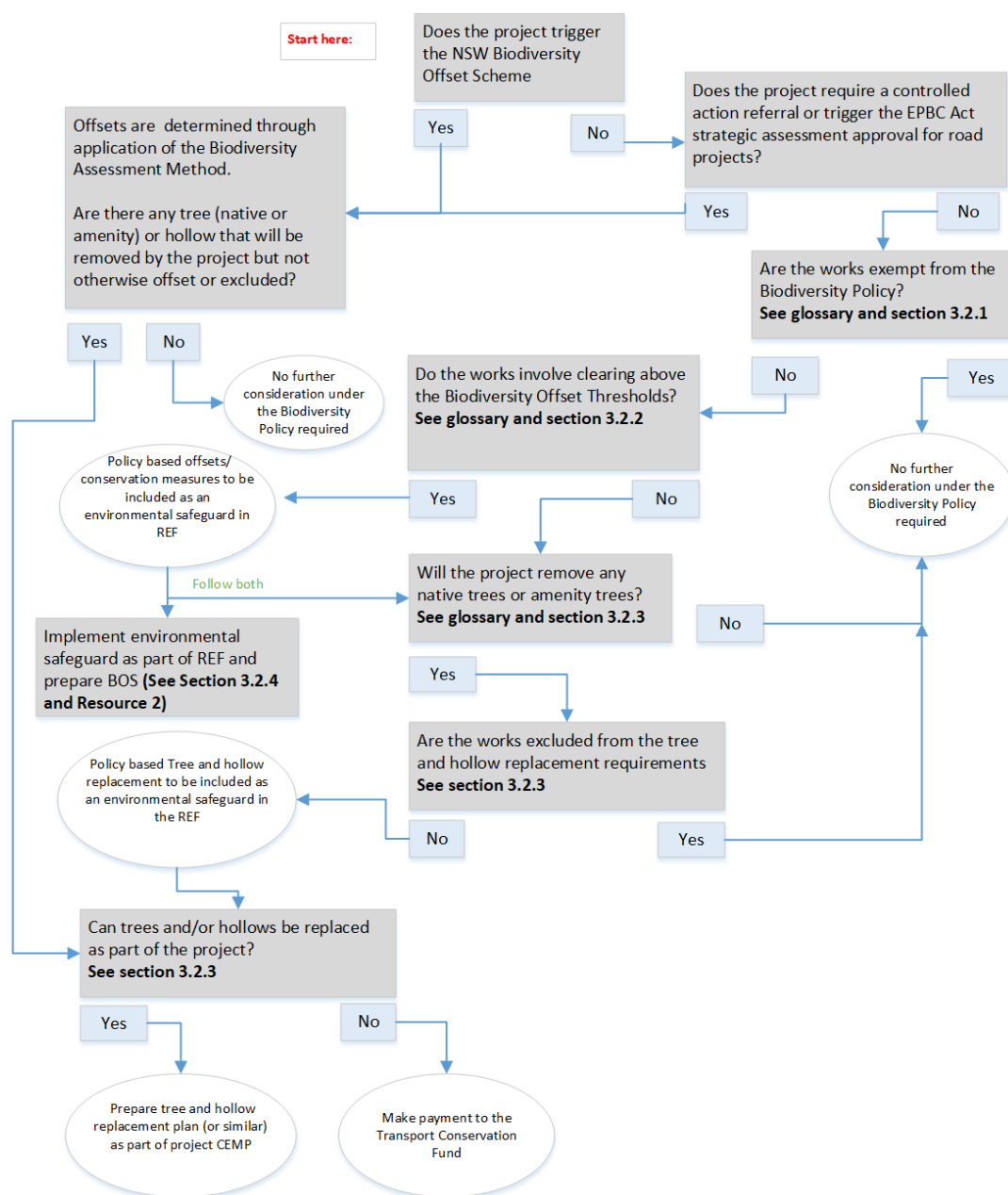


Figure 3-1: Transport Biodiversity Policy requirements

3.2.2 Biodiversity offset thresholds

The Biodiversity Policy establishes impact thresholds which trigger the requirement to provide biodiversity offsets or conservation measures for Part 5 Division 5.1 projects. These are described at **Table 3-1**. It is intended that the project impacts are assessed against these thresholds in the following manner:

1. Identify the areas of native vegetation being impacted that meet a Category A (TEC) threshold (where vegetation is listed under both NSW and Commonwealth legislation, the higher conservation listing applies). Exclude marine vegetation that requires offsetting in accordance with DPI (2013). Calculate the ecosystem credits for Category A threshold triggers.
2. For all remaining vegetation that does not trigger a Category A threshold, identify the areas of native vegetation being impacted that meet a Category B (species-credit fauna habitat) threshold. Species-credit species must be **known²** to occur (offsets are not required for assumed presence). Calculate the species credits for each **known²** species habitat impact (through a species polygon in accordance with the BAM) that triggers a Category B threshold.
3. Identify any **known²** threatened flora impacts and calculate the required number of species credits. This will require the creation of a species polygon in accordance with the BAM. Credits are calculated for impacts to **known²** threatened flora in addition to Step 1 and Step 2.
4. Identify the areas of marine vegetation (key fish habitat) being impacted and offset in accordance with DPI (2013).

The BAR prepared for the project would identify whether any of these thresholds have been met. Where further avoidance is not possible, a commitment should be made to prepare a Biodiversity Offset Strategy as part of the project's environmental safeguards.

It is recommended that the BAR provide a preliminary calculation of the amount of offsetting required in the form of biodiversity credits. This will allow early planning for offsetting prior to development of a Biodiversity Offset Strategy. The Biodiversity Offset Strategy would then review the credit calculation once the final design and clearing areas are known. This decision to prepare a Biodiversity Offset Strategy should be made on a case by case basis depending on complexity of the offsets required, construction timing and whether a suitably finalised design is available at the time of REF preparation.

Table 3-1: Area based offsetting thresholds for REFs

Category	Description of impact	Consider offsets
A. Threatened ecological communities		
A1	Works involving clearing of an EPBC Act or BC Act listed critically endangered ecological communities (CEEC).	Where there is any clearing of an CEEC in 'moderate to good' ¹ condition.
A2	Works involving clearing of an EPBC Act or BC Act listed endangered ecological community (EEC).	Where clearing of an EEC ≥ 2 hectares in 'moderate to good' ¹ condition.
A3	Works involving clearing of a BC Act listed vulnerable ecological community (VEC).	Where clearing of VEC ≥ 5 ha in 'moderate to good' ¹ condition.
B. Threatened fauna habitat		
B1	Works involving clearing of threatened fauna habitat for ecosystem-credit species that is also a TEC identified in Category A.	No – covered by Category A TEC thresholds.
B2	Works involving clearing of any habitat (that has not triggered a TEC threshold in Category A) for a known² species credit fauna species or clearing of	Where clearing ≥ 1 hectare in moderate to good condition, excluding vegetation that

¹ EMF-BD-GD-0010_TT4 Biodiversity assessment report template for REFs provides for the identification of low condition vegetation (Section 2.3.2). All vegetation not identified as low condition, is considered moderate to good condition for the purpose of this threshold.

² "Known" means a species that was observed in the study area during the current survey or has been recorded within the past five years (from a reputable source).

	breeding habitat (as defined by the TBDC) for a known² dual-credit fauna species (excluding exotic and planted vegetation that cannot be assigned to a plant community type).	has already triggered a Category A TEC threshold.
C. Threatened flora and habitat		
C1	Works involving removal of known² threatened flora species and their habitat.	Where loss of individuals is ≥ 10 (species that have a 'count of individuals' as the unit of measure) or where clearing of habitat (calculated by a species polygon in accordance with the BAM) is ≥ 1 hectare.
D. Key fish habitat		
D1	Type 1 and Type 2 key fish habitats	Where there is a net loss of habitat

Note: Additional requirements exist in relation to the replacement of trees and hollows, for any impacts that do not trigger these area thresholds. *EMF-BD-GD-0129 Tree and hollow replacement guidelines* details how these requirements should be calculated and if necessary, how to meet these obligations through payment to the TfNSW Conservation Fund.

3.2.3 Biodiversity Offset Strategy (Policy trigger)

Where biodiversity policy commitments have been included in the REF's environmental safeguards, then a Biodiversity Offset Strategy would be prepared to:

- Confirm which offsetting thresholds have been exceeded based on the final clearing boundary.
- Calculate the offset and/or conservation requirement in accordance with these guidelines.
- Establish what feasible and reasonable steps can be taken to meet this requirement including timing and delivery partners.

Preparation of the BOS can typically commence any time after the project has been determined. However the BOS may not be finalized and implemented until the final impact area is known, which may be after clearing has been completed. Offsets should be secured as soon as practicable following the impacts.

A BOS (Policy) template is provided at Resource 2 to this guideline.

Where offset calculations are required, the preparation of the BOS will require the services of an Accredited Assessor. This involves the use of the BAM-Calculator and requires field data collected in accordance with the BAR template.

Where it is not feasible to obtain the input of an Accredited Assessor, contact the Biodiversity Specialists for further advice and assistance.

3.3 Alignment of aquatic and terrestrial biodiversity requirements

The BAM will generate a credit requirement for certain marine vegetation (see table **Table 3-2** below) even though the BC Act definition of native vegetation does not include marine vegetation³. DPIRD guidelines will also require offsetting impacts to these PCTs and DPIRD will not necessarily accept BC Act mechanisms to meet their offset expectations. See [Fact sheet: Aquatic biodiversity \(nsw.gov.au\)](https://www.nsw.gov.au/fact-sheet/aquatic-biodiversity) and [Policy and guidelines for fish habitat conservation and management \(update 2013\) \(nsw.gov.au\)](https://www.nsw.gov.au/policy-guidelines/fish-habitat-conservation-and-management-update-2013).

Early consultation with DPIRD and NSW DCCEEW is required to resolve overlapping offsetting requirements for these PCTs. Please contact the Biodiversity Specialists if this applies to your project.

³ Unless a declaration under section 14.7 of the BC Act is made. At the time of writing, no such declarations have been made.

Table 3-2: PCTs that meet the definition of marine vegetation

PCT ID	PCT name	Vegetation formation
Existing PCTs (valid until end of 2022)		
915	Mangrove-Black Mangrove low closed forest of the northern NSW North Coast Bioregion	Saline wetlands
916	Mangrove-Grey Mangrove low closed forest of the NSW Coastal Bioregion	Saline wetlands
917	Mangrove-Milky Mangrove low closed forest of the North Coast	Saline wetlands
918	Mangrove-River Mangrove low closed forest of the NSW Coastal Bioregion	Saline wetlands
919	Mangrove-Spider Mangrove low closed forest of the northern North Coast	Saline wetlands
920	Estuarine mangrove forest	Saline wetlands
1125	Saltmarsh complex of the NSW North Coast Bioregion	Saline wetlands
1126	Estuarine saltmarsh	Saline wetlands
1746	Saltmarsh Estuarine Complex	Saline wetlands
1747	Grey Mangrove low closed forest	Saline wetlands
1913	Seagrass Meadows	Saline wetlands
Revised PCTs (valid from 2023 onwards)⁴		
4040	South Coast Selliera-Sea Rush Swamp Oak Saltmarsh	Saline wetlands
4090	Far North Estuarine Mangrove-Swamp Oak Forest	Saline wetlands
4091	Grey Mangrove-River Mangrove Forest	Saline wetlands
4092	Coastal Headland Sea Spray Grassland	Saline wetlands
4094	Estuarine Club Rush-Arrowgrass Wetland	Saline wetlands
4095	Paspalum vaginatum-Samphire Saltmarsh	Saline wetlands
4096	Prickly Couch-Sea Rush Saltmarsh	Saline wetlands
4097	Samphire Saltmarsh	Saline wetlands
4101	South Coast Spear-grass Saltmarsh	Saline wetlands
4102	South Coast Bracelet Honey-myrtle Sea Rush Saltmarsh	Saline wetlands
4103	Sporobolus virginicus Saltmarsh	Saline wetlands
4141	Coastal Headland Saltmarsh	Saline wetlands

⁴ NSW DCCEEW released the revised classification of Plant Community Types in eastern NSW in April 2023

3.4 Alignment of NSW and Commonwealth offset requirements

The Commonwealth has formally endorsed the NSW Biodiversity Offset Scheme (including calculating credits using the BAM and payments to the Biodiversity Conservation Fund) as an offset mechanism for entities listed under the EPBC Act. This endorsement covers the majority of Commonwealth offset requirements. However, there are situations whereby meeting Commonwealth offset requirements requires additional steps beyond meeting BAM requirements.

One example of this is offsetting impacts to species and ecological communities listed nationally but not in NSW.

While the BAM will generate a credit requirement for these species, making BCF payments is not currently possible and offsetting requires application of the EPBC Act environment offset policy (2012). Purchasing credits may be possible if a clear like-for-like relationship can be demonstrated between the credit and the MNES entity.

Consultation with the Biodiversity Specialists is required should these situations arise.

4. Meeting offset requirements

4.1 Introduction

There are 3 main options available to meet terrestrial biodiversity offset requirements for developments and activities that have triggered the Biodiversity Offset Scheme. These are:

- Make payment into the Biodiversity Conservation Fund (BCF).
- Purchase and retire biodiversity credits including purchasing from the Transport Biobank.
- Arrange for Biodiversity Conservation Actions to be undertaken (subject to NSW DCCEEW approval requirements).

Where the NSW Biodiversity Offset Scheme has not been triggered and the TfNSW Biodiversity Policy applies (including where aquatic offsets are required), conservation measures can also be used.

This section outlines how to secure offsets using these mechanisms. It should be read in conjunction with the TfNSW Property and Environment Delegations (sharepoint.com) and explanatory notes.

4.2 Making payment to the BCF

Under the BC Act, TfNSW may choose to pay into the BCF as an alternative to retiring biodiversity credits. The BCF is available for any project where a BDAR has been prepared.

Payment to the BCF may also be used for:

- EPBC Act offsets, including those required by the EPBC Act strategic assessment approval, provided the entity is also listed under the schedules of the BC Act.
- Policy based offsets triggered by the Transport Biodiversity Policy for Part 5, Division 5.1 projects.

The cost of making a payment to the BCF can be obtained from the BCT for individual projects (known as the Biodiversity Conservation Fund Charge System) via a [Charge Quote Application](#).

TfNSW has confirmed with the BCT that the REF and the determination memo (for Part 5 Division 5.1 projects) or EIS and Minister's condition of approval (for Part 5 Division 5.2 projects) must be provided with the application (*in lieu* of a development application) and that the application must be made after determination of the REF or approval of the SSI. A Credit Summary Report and 'Like for Like' Credit Report from the BAM Credit Calculator must also be provided.

This option is the most administratively simple option available to fully acquit an offset obligation, however it is generally more expensive than credit purchase. This is largely due to the administrative overheads, including risk premium (10% - 17%) and delivery cost (5% or \$120 per credit, whichever is higher) charged by the fund administrators. A monthly indexation rate of 0.51% is also applied to the price each month following receipt of the quote (to account for inflation) until payment is made to the BCF. The BCT adjust the cost of their credit prices annually in October, however quotes issued by the BCT are valid for three years. For more information on the BCF charge system, visit the [BCT website](#).

Several tools are available to estimate the cost of a BCF payment prior to applying for a quote. The BCT [publish a quarterly report on their website](#) showing all BCF charge quotes six months after they are issued. If the relevant credits are not included in the quarterly charge report, the BCT also offers a price estimation service for a fee to [provide a predicted credit price](#). The cost of this service is \$200 for the application and an additional \$100 for each credit type. Note that the prices in the quarterly charge report and price estimation service do not include a delivery fee and risk premium charge on top of the credit price. This could be estimated by adding another 20% on top.

The Transport Biodiversity Policy notes that the BCF will be the appropriate option where:

- No suitable biodiversity credits for sale on the NSW DCCEEW credit registers; and
- Transport's Biobank does not have suitable credits available; or

- Approval conditions do not allow sufficient time for biodiversity credit acquisition (including through options agreements for credits yet to be issued); or
- Credits sought are less than 100 credits and/or are rare and difficult to purchase.

Project Managers should weigh up the relative costs and benefits of using the BCF compared to other options and explore availability of issued credits on the market (See **Section 4.3**).

The administrative steps required for making payments to the BCF is shown at **Figure 4-1**. A template memo to pay into the BCF is at Resource 3 of this guideline.

The Lead Environmental Advisor should confirm roles and responsibilities for each step of the process with the Project Manager.

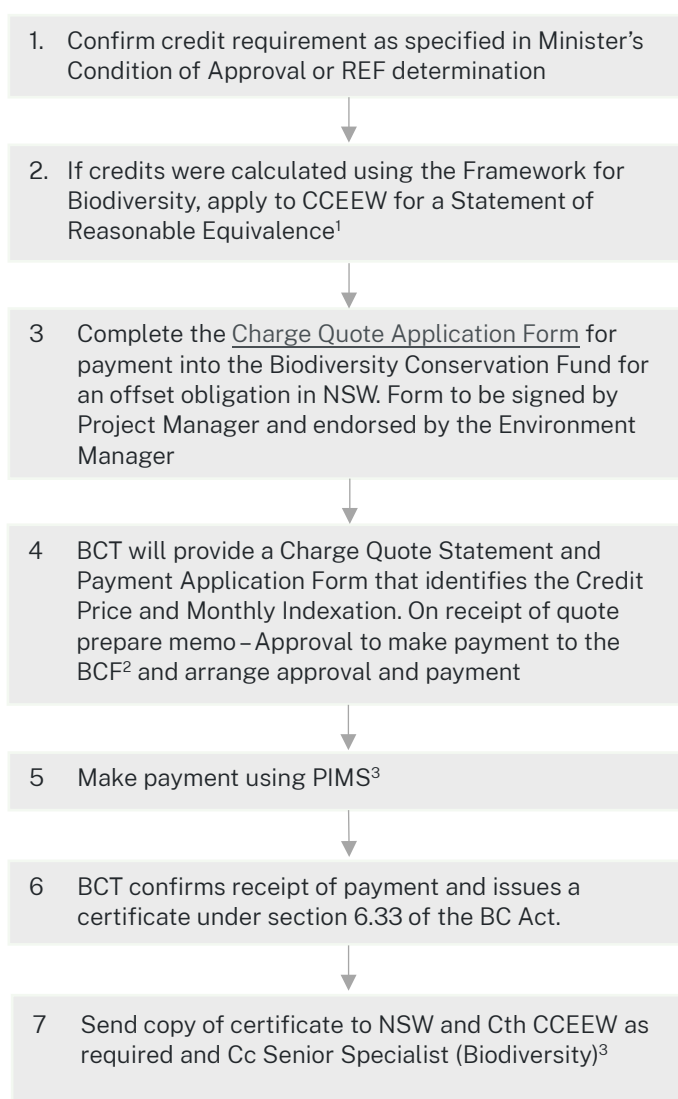


Figure 4-1: Administrative steps involved in making payments to the Biodiversity Conservation Fund (BCF)

¹ [Assessment of reasonable equivalence | NSW Environment and Heritage](#)

² See Resource 3 for template memo

³ For further information see Procedure for using PIMS to undertake credit transactions

For more information [Pay into the fund to offset development | BCT \(nsw.gov.au\)](#)

4.3 Purchasing biodiversity credits

There are four ways available to secure credits for your project:

- Use any suitable and available credits in the Transport Biobank (refer to **Section 4.3.1**).
- Purchase issued credits on the market (refer to **Section 4.3.2**).
- Generate credits from suitable TfNSW land. Could also apply to lands purchased for transfer to NPWS as compensation for revocation (refer to **Section 4.4**).
- Sponsor landholders to enter a BSA on their land and then buy the credits issued from the landholder (refer to **Section 4.5**).

Each of the credit purchase options are discussed below.

4.3.1 Buying credits from the Transport Biobank

TfNSW has established the Transport Biobank which holds credits:

- Generated from TfNSW land but are not yet allocated to a project.
- Purchased by projects and were found to be excess to requirements.

The Transport Biobank is managed by Environment and Sustainability and credits available can be viewed in EMF-BD-GD-0129-TT11 Transport Biobank credits available (Resource 11). An application must be completed to sell credits to the Biobank, purchase credits from the Biobank, or allocate (earmark) credits using EMF-BD-GD-0011-TT10 Transport Biobank credit transfer application (Resource 10). Refer to **Resource 10** for more information about who can apply and the information required. Please contact the Biodiversity Specialists in this branch for support.

4.3.2 Buying credits available on the market

NSW DCCEEW maintain the online [Biodiversity Offsets Scheme public registers](#) that lists all issued credits available and pending credits (which need assessment or approval) including contact details for sellers. Expressions of interest for potential credit supply are also included on the registers and should be included in inquiries if timeframes for credit issue meet approval requirements. NSW DCCEEW also maintain online registers that detail previous sales information for credits. This register can be found at [Biodiversity Credits Market Sales Dashboard | NSW Environment and Heritage](#).

As part of the credit acquisition process, the project credit requirement should be listed on the credit demand register for a period of at least eight weeks prior to commencing any credit purchase negotiations.

The online fact sheet [Selling biodiversity credits to Transport for NSW](#) provides a public facing sheet about how TfNSW purchases credits and [Appendix L of the Property Acquisition process](#) explains our internal property procedures. .

The Lead Environmental Advisor should confirm roles and responsibilities for each step of the process with the Project Manager and Project Property Services.

The process of purchasing issued credits on the market is shown at **Figure 4-2** and is based on the procedure set out in [Appendix L of the Property Acquisition process](#). A template briefing note seeking approval to commence credit purchase negotiations is at Resource 4 of this guideline. The briefing note documents the following:

- Total credit requirement for the project
- Results of enquiries with sellers of issued and pending credits
- Results of consultations with potential credit sellers who have registered an expression of interest
- Results of Transport registering interest on the credit demand register
- BCF charges for each credit recommended for credit acquisition
- Shortlist of credits to progress through the acquisition process.



Figure 4-1: Buying credits on market

¹ See **Appendix B**.

² [Biodiversity Offsets Scheme public registers | NSW Environment and Heritage](#).

³ Examples of previous expressions of interest will be saved to SharePoint.

⁴ Joint process with Environment and Property. Note credits matching variation rules cannot be purchased until requirements for purchasing like-for-like credits are met. See **Appendix B**.

⁵ Template contracts available from Legal Services.

⁶ [Guidance for transferring and retiring Biodiversity Offsets Scheme credits | NSW Environment and Heritage](#).

⁷ See Procedure for using PIMs to undertake biodiversity transactions.

4.4 Generating credits on TfNSW owned land

Generating credits on TfNSW-owned land involves working with Project Property Services and Property Divestment to identify project or residue land with suitable biodiversity values and agreeing on a property disposal strategy and then going through the process of entering a biodiversity stewardship agreement over the land.

Funding is available from the Transport Biobank to wholly or partly pay for the generation of credits on land where a project has no (or partial) requirement for the credits that could be generated and the project is purchasing the land for other purposes (e.g. for NPWS compensation or as part of the project). Credits generated through this process will be allocated to the Transport Biobank and made available for future TfNSW projects at cost. Resource 8 of this guideline is an application form for Biobank funding of BSA costs.

Generating BSAs on TfNSW owned land can be a very cost-effective source of credits (compared to both BCF payments and private purchase of credits). Responsibility for assessing BSA applications now rests with the Nature Markets and Offsets Division within NSW DCCEEW.

Due to recent changes, however, to the NSW National Parks and Wildlife Service '[Revocation, recategorisation and road adjustment policy](#)' credits cannot be generated over land that is to be used to compensate NPWS for national park revocations.

The Residue Land Biodiversity Offsetting procedure sets out the requirements for entering a BSA on residue land (excluding TAHE lands) including delegations, workflows and approval templates and roles and responsibilities across TfNSW. Resource 5 of these guidelines provides a brief to engage an [Accredited Assessor](#) to prepare an application to enter a BSA.

4.5 Sponsoring landholders to participate in the Biodiversity Offset Scheme

Where no credits are available for sale, TfNSW can sponsor landholders to enter a biodiversity stewardship agreement. Generating credits from BSAs can be a cost effective source of credits compared, for instance, to BCF payment.

This process commences by seeking expressions of interest from landholders in relevant local papers and then working with any interested landholders to progress a BSA. Examples of communications material used by previous projects will be saved to [Environment & Sustainability Management Framework](#).

The process of sponsoring private landholders to generate credits is shown at **Figure 4-3**.

The lead environmental advisor should confirm roles and responsibilities for each step of the process with the Project Manager.

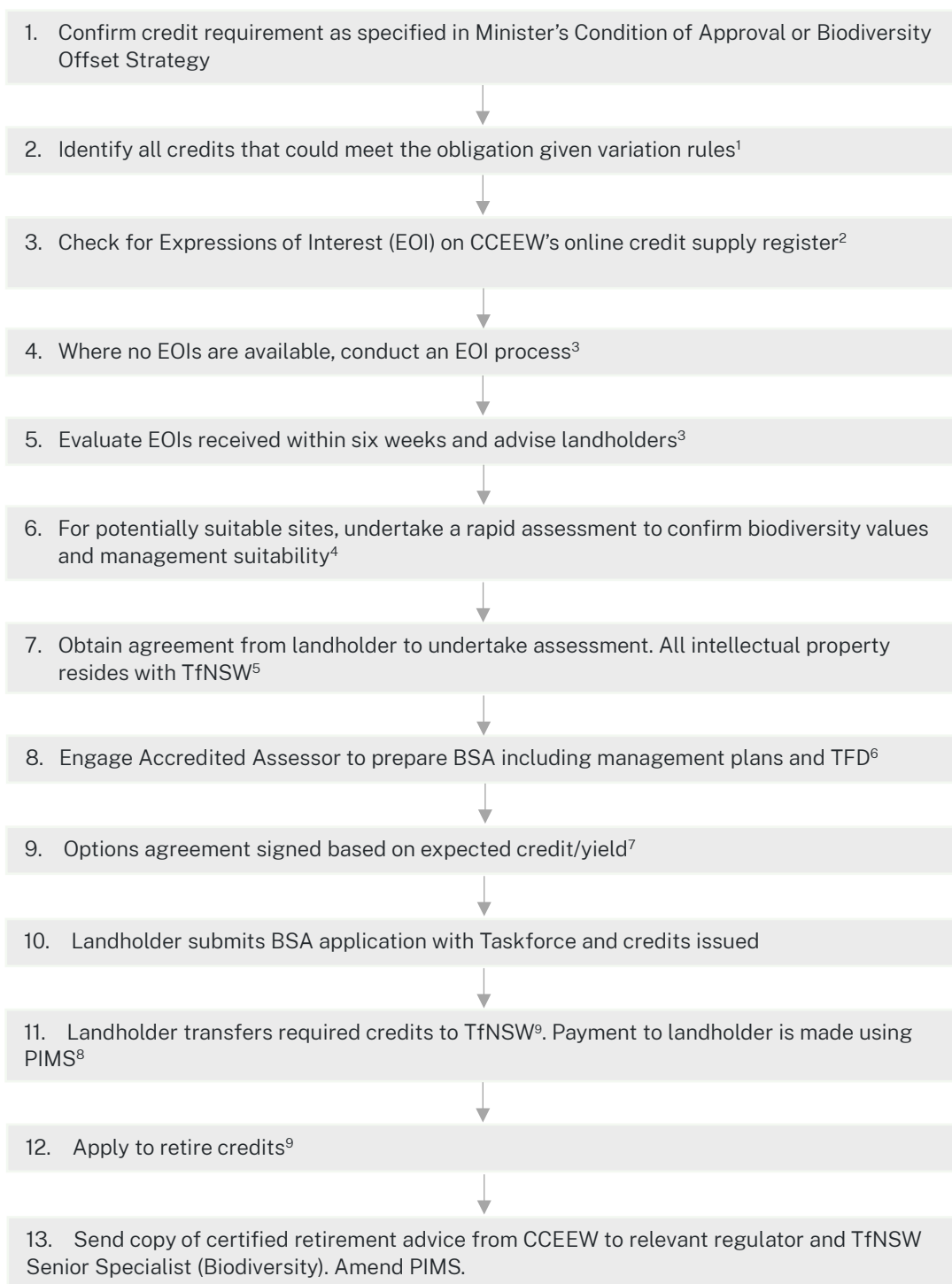


Figure 4-2: Sponsoring private landholders to generate credits

¹ See **Appendix B**

² [Biodiversity Offsets Scheme public registers | NSW Environment and Heritage](#).

³ Examples of both will be saved under SharePoint.

⁴ Best undertaken by Accredited Assessor. Contact Biodiversity Specialists for assistance if required.

⁵ Resource 9 is a template letter to confirm access and IP arrangements with sponsored landholders.

⁶ [Accredited assessors | NSW Environment and Heritage](#)

⁷ Options agreement template available from Legal Services.

⁸ For further information see Procedure for using PIMS to undertake credit transactions

⁹ Transfer and retire applications are at [Guidance for transferring and retiring Biodiversity Offsets Scheme credits | NSW Environment and Heritage](#).

4.6 Biodiversity conservation actions

Biodiversity conservation actions can be used to meet statutory offset requirements in some circumstances (BC Regulation 6.2) instead of credit purchase or BCF payment. Ancillary rules apply which prescribe which actions qualify as a biodiversity conservation action (BC Regulation 6.5). See [Ancillary rules: Biodiversity conservation actions | NSW Environment and Heritage](#).

Clause 6.2(2)(c) of the BC Regulation states that the amount required to fund biodiversity conservation actions must be “equivalent to the cost of acquiring the required like-for-like biodiversity credits as determined by the offsets payment calculator”.

This approach has not been used by TfNSW to date and consultation with Biodiversity Specialists is recommended.

4.7 Conservation measures including aquatic offsetting

Conservation measures are not an offsetting option available for projects impacting terrestrial biodiversity and have triggered the NSW Biodiversity Offset Scheme. Conservation measures are an option for projects that have triggered the area thresholds under the Transport Biodiversity Policy (see **Table 3-1**).

Conservation measures are designed to deliver improvements in the condition of biodiversity or improve our understanding of the ecology of a species or ecological community.

Conservation measures include:

- Weed control.
- Vegetation rehabilitation activities.
- Habitat augmentation including hollow creation.
- Tree-planting.
- Fencing.
- Bank stabilisation.
- Instream restoration and repair.
- Marine conservation activities including habitat creation and restoration projects.
- Ecological fire management and cultural burning.
- Other activities that support Aboriginal people care for Country.
- Mitigation of vehicle strike.
- Activities required to support achieving these activities.
- Research initiatives relevant to these activities.

Where conservation measures are proposed, the Project Manager, with support from the Lead Environmental Advisor and Biodiversity Specialist should consider what conservation measures can be reasonably provided and then arrange for the conservation measures to be determined and delivered in partnership with local providers (see **Figure 4-4**). Payment to the Transport Conservation Fund is not an available option in this circumstance. This fund can only be used to acquit tree and hollow replacement requirements where local delivery is not possible.

The Biodiversity Policy notes that selecting reasonable measures involves judging whether the overall biodiversity benefits are worthwhile in the context of:

- recent and anticipated impacts of a similar nature in the locality;
- the cost of the measure, including the cost of the measure as a percentage of the total project cost and any ongoing maintenance and operational costs; and
- the level of community interest and engagement with the proposed measure

Relevant conservation measures can also be used for all aquatic offsets in accordance with Section 3.3.3 Rehabilitation and compensation measures of the *Policy and guidelines for fish habitat conservation and management Update 2013* (DPI (Fisheries NSW) 2013) along with payments to the DPIRD Fish Conservation Fund. Refer to relevant section of the Biodiversity Offset Strategy template for more information on determining offsets for impacts to aquatic habitat.

See also [Fact sheet: Aquatic biodiversity \(nsw.gov.au\)](https://www.nsw.gov.au/fact-sheet/aquatic-biodiversity) for example of aquatic offsetting.



Figure 4-3: Arranging for conservation measures where biodiversity offset thresholds are met³

¹ Providing offsets involves purchasing credits or paying into the Biodiversity Conservation Fund. While these are effective offsetting options, the offsets are unlikely to be delivered locally. Where the local community is raising issues of local biodiversity significance, then conservation measures may be the more appropriate pathway.

² See **Section 4.7** of this guideline.

³ Example expressions of interest, evaluation criteria and application forms and agreements will be made available on Sharepoint.

5. Legacy offset obligations

Where TfNSW holds an offset obligation that was calculated using the Framework for Biodiversity Assessment (FBA), they will need to seek an assessment of reasonable equivalence from NSWDCCEEW before paying into the Biodiversity Conservation Fund (BCF) or using credits generated by a BSA.

Payments to the BCF can be made once:

- Credit obligation has been calculated using the BAM or NSWDCCEEW has issued a 'credit equivalence' statement confirming BAM-equivalent credits; **and**
- Project REF has been determined or the major project approval has been granted.

The BCT will review the application and advise the proponent in writing whether the proposed payment can be made (including by providing fund deposit details).

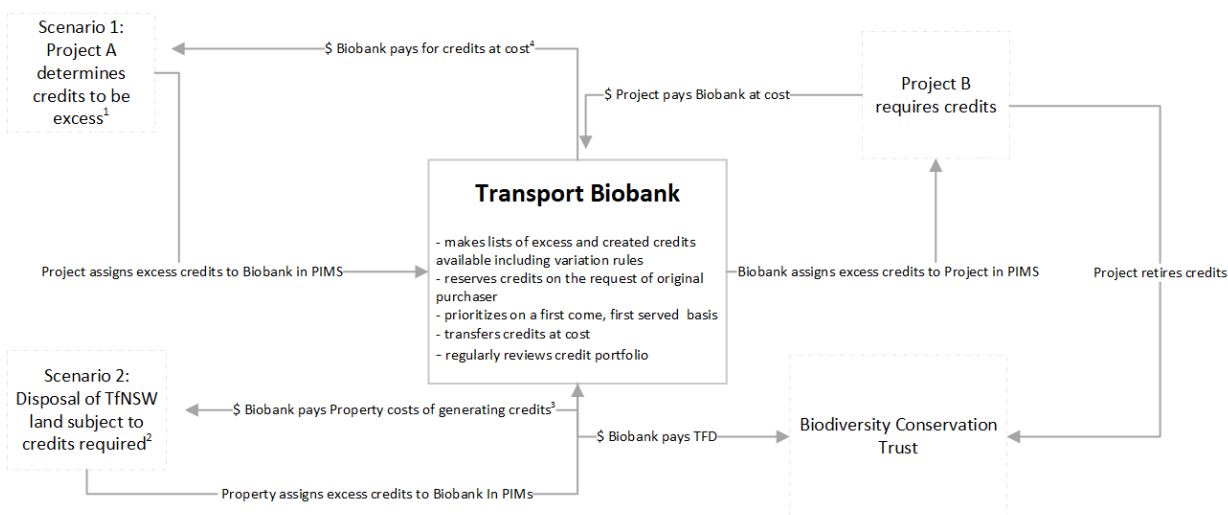
Following receipt of payment, the BCT will issue a certificate under the BC Act.

6. Transferring excess credits to Biobank

Where a project has excess credits at the completion of a project, an application can be made to the Transport Biobank to recoup the costs of these credits. The process is shown as Scenario 1 on **Figure 6-1**. The Transport Biobank will purchase the credits where:

- There is a reasonable prospect that a future TfNSW project will require the credits; **and**
- At a cost equal to what the project paid for the credits.

The Transport Biobank can only trade in biodiversity credits created under the NSW Biodiversity Offsets Scheme. Should you wish to sell older Biobanking credits, you will need to obtain a statement of reasonable equivalence from NSWDCCEEW prior to applying. Applications to transfer excess credits are made by completing the form at Resource 10 of this guideline.



¹ Covers scenario (likely) where credits are purchased by a project on the market and then found to be excess of project requirements. Programs are able to "reserve" these credits for future use

² Covers scenario (rare) where credits are generated on residue land, either by the project or by Property in consultation with SER, and Property are disposing of the property prior to project credit retirement timeframes. This requires payment of the Total Fund Deposit (TFD) to BCT which Biobank can cover pending project requirements. Credits can then be retired at a later date according to project requirements.

³ Project credits Landbank for any loss in value from the creation of the BSA and costs incurred in credit generation in accordance with the Residue Land Biodiversity Offsetting procedure

⁴ All payments for excess biodiversity credits are returned back to the respective purchasing project

Figure 6-1: Transport Biobank processes

7. References

Department of Environment (DoE) 2013, Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (dcceew.gov.au).

Department of Planning, Industry and Environment (DPIE) 2020, Biodiversity Assessment Method (nsw.gov.au).

Department of Primary Industries (DPI) 2013, Policy and guidelines for fish habitat conservation and management (Update 2013) (nsw.gov.au).

NSW National Parks and Wildlife Service Revocation, recategorization and road adjustment policy

Office of Environment and Heritage (OEH) 2014, NSW Biodiversity Offsets Policy for Major Projects: Framework for Biodiversity Assessment.

Office of Environment and Heritage (OEH) 2017a, Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits (nsw.gov.au).

Office of Environment and Heritage (OEH) 2017b, Ancillary rules: Impacts on threatened species and ecological communities excluded from application of variation rules (nsw.gov.au).

Office of Environment and Heritage (OEH) 2018, Threatened Species Test of Significance Guidelines (nsw.gov.au).

8. Definitions

Term	Definition
Accredited person	Has the same meaning as in the BC Act, referred to in the BAM as ‘assessor’, i.e., in relation to the preparation of biodiversity assessment reports, means a person accredited under section 6.10 (of the BC Act) to prepare those reports in accordance with the biodiversity assessment method .
Amenity tree	Trees, both native and exotic, that are valued by people due to their beauty, function, historical, biodiversity or cultural significance.
AOBV	Areas of Outstanding Biodiversity Value . AOBV's are declared by the Minister for the Environment. These are special areas that contain irreplaceable biodiversity values that are important to New South Wales, Australia or globally.
Artificial hollow	Artificial hollows, including hollows carved into a tree, nest boxes attached to trees and salvaged hollows can be used to provide supplementary breeding habitat and shelter for hollow-dependent fauna where hollows have been removed. When designed, built, installed and monitored correctly artificial hollows can provide an alternative to natural fauna habitat.
BAM	Biodiversity assessment method established under Part 6 of the Biodiversity Conservation Act 2016. The BAM assesses the likely impact of development proposals on biodiversity and calculates (in biodiversity credits) the likely losses in biodiversity values from development sites. The BAM also calculates (in biodiversity credits) the likely gain in biodiversity values from biodiversity stewardship agreement sites.
BCT	Biodiversity Conservation Trust established under Part 10 of the <i>Biodiversity Conservation Act 2016</i> .
BCF	Biodiversity Conservation Fund administered by the Biodiversity Conservation Trust. Payments to the fund are a mechanism to acquit biodiversity offset obligations
BC Act	NSW <i>Biodiversity Conservation Act 2016</i>
Biodiversity credit	A biodiversity credit created by (and in accordance with) a biodiversity stewardship agreement as issued by the Taskforce
Biodiversity conservation action	Can be used to offset impacts in some circumstances (BC Regulation 6.2) instead of credit purchase or BCF payment. Ancillary rules prescribe which actions qualify as a biodiversity conservation action (BC Regulation 6.5) Ancillary rules: Biodiversity conservation actions NSW Environment and Heritage .
Biodiversity offsets	As defined by the Biodiversity Assessment Method -the gain in biodiversity values achieved from the implementation of management actions on areas of land, to compensate for losses to biodiversity values from the impacts of development. See also Biodiversity offset mechanisms.
Biodiversity offset mechanisms	Biodiversity offsets mechanisms are the purchase of biodiversity credits under the Biodiversity Offset Scheme or payment to the Biodiversity Conservation Fund (BCF) administered by the Biodiversity Conservation Trust (BCT).
Biodiversity Offset Scheme (BOS)	Biodiversity Offsets Scheme established under Part 6.2 of the BC Act.
Biodiversity Stewardship Agreement (BSA)	Land that is designated by a biodiversity stewardship agreement to be a biodiversity stewardship agreement for the purposes of the BC Act.

Biodiversity Offset Scheme thresholds (NSW)	<p>Are the legal thresholds to provide biodiversity offsets arising from BC Act. Transport is legally obliged to participate in the Biodiversity Offset Scheme (BOS) for:</p> <ul style="list-style-type: none"> • All major projects including State Significant Infrastructure (SSI) and Critical State Significant Infrastructure (CSSI) under Part 5, Division 5.2 of the Environmental Planning and Assessment Act 1979 (EP&A Act), unless the impacts to biodiversity are not significant. • All REF projects under Part 5, Division 5.1 of the EP&A Act that are likely to have a significant impact on threatened species and threatened ecological communities or impact Areas of Outstanding Biodiversity Value. • All projects permissible with consent under Part 4 of the EP&A Act that exceed the offsetting thresholds for developments under Part 4 (See Appendix A). <p>Transport must also provide offsets where the Commonwealth Minister for Environment has determined the project to be a controlled action under the Environment Protection and Biodiversity Conservation Act 1999 or where the provisions of the EPBC Act strategic assessment approval for road projects applies.</p>
CEEC	Critically Endangered Ecological Community listed under the EPBC Act or BC Act.
Conservation measure	<p>Activities voluntarily undertaken by TfNSW in addition to BOS or EPBC Act requirements to address the ongoing cumulative impacts of TfNSW activities on biodiversity and local environments. Conservation measures are different to biodiversity conservation actions under the BOS.</p> <p>Conservation measures are typically delivered locally and include weed control, vegetation rehabilitation activities, habitat augmentation, tree-planting, fencing, bank stabilisation, instream restoration and repair, ecological fire management, vehicle strike mitigation or supporting research initiatives by a recognised tertiary institution.</p>
Created biodiversity credits	Credits generated from a <u>BSA</u> over Transport-owned land.
CSSI	Critical state significant infrastructure under Part 5, Division 5.2 of the EP&A Act.
Development	For the purposes of the Biodiversity Policy, means projects undertaken by Transport and approved under Part 4, Part 5 Division 5.1 and Part 5 Division 5.2 of the EP&A Act.
Disturbed zone	Has the same meaning as the Routine and Minor Works Procedure and applies to road activities only.
EEC	Endangered Ecological Community listed under the EPBC Act or BC Act.
Environmental Regulators	Includes Environment, Energy and Science Division of the NSW Department of Planning and Environment and Commonwealth Department of Agriculture, Water and Environment.
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979.</i>
EPBC Act strategic assessment approval for road projects	Agreement between Commonwealth Minister for the Environment and Transport for NSW under Part 10 of the EPBC Act. See <u>Strategic assessment of some NSW road and traffic management works-DCCEEW</u> .
Excess biodiversity credits	Credits acquired for a project by Transport and found to be surplus to project requirements.
Feasible	<p>For biodiversity offset requirements, offset delivery is always considered feasible due to the ease of payment to the BCF.</p> <p>For tree and hollow replacement requirements, feasibility relates to practical considerations and involves the consideration of the following preference hierarchy:</p> <ol style="list-style-type: none"> 1. Modifying works to avoid impacts and reduce requirement. 2. Tree and hollow replacement on land within the infrastructure corridor in proximity to the proposal triggering the requirement. 3. Tree and hollow replacement on land in proximity to the proposal triggering the requirement.

	4. Making a contribution to a TfNSW Conservation Fund .	
Habitat tree	Habitat trees are typically native species that provide food and/or shelter for native fauna and flora.	
No net loss	<p>For the purpose of the Biodiversity Policy, projects will have achieved a no net loss where the expected loss from infrastructure development has been:</p> <ul style="list-style-type: none"> • Avoided to the extent reasonably practicable; and • Mitigation measures, including measures to reduce habitat fragmentation effects, have been applied to the extent reasonably practicable; and • Offsets have been provided through either credit purchase or BCF payment of the required number and type of biodiversity credits in accordance with the BAM or TfNSW guidelines; and/or • Conservation measures have been delivered in accordance with the requirements of the Biodiversity Policy and guidelines. 	
Operational clearances	Means the area required to be maintained for the safe and efficient operation of the infrastructure and applies to rail activities only	
PIMS	Transport's Property Information Management System.	
Reasonable	<p>Selecting reasonable measures from those that are feasible involves judging whether the overall biodiversity benefits are worthwhile in the context of:</p> <ul style="list-style-type: none"> • recent and anticipated impacts of a similar nature in the locality • the cost of the measure, including the cost of the measure as a percentage of the total project cost and any ongoing maintenance and operational costs • the level of community interest and engagement with the proposed measure. <p>Where the cost of making payment to the BCF to meet TfNSW biodiversity offset requirements is considered excessive, conservation measures will be considered and provided to the extent or value considered appropriate.</p> <p>Where the cost of making payment to the TfNSW Conservation Fund to meet Tree and Hollow replacement requirements is considered excessive, changes must be made to project scope to reduce impacts.</p>	
Reasonably likely to naturally regenerate	Means areas capable of natural regeneration as evidenced by the presence of a native understorey including juvenile native trees and shrubs as determined by an appropriately qualified person.	
Residue land	Residue land is Transport-owned land that is not required for current or future project requirements and therefore would be available for disposal.	
REF	Review of Environmental Factors. Prepared to meet Transport's statutory obligation to consider the impact of its activities on the environment to the fullest extent reasonably practicable for projects considered under Part 5, Division 5.1 of the EP&A Act.	
SER	Safety Environment and Regulation, Transport for NSW	
SSI	State significant infrastructure under Part 5, Division 5.2 of the EP&A Act	
Strategic planning processes	Includes any process intended to establish the scope and merit of a proposed activity including strategic business case development, options analysis, route optioneering exercises and the development of project briefs	
Transport biodiversity offset thresholds	<p>Impact</p> <p>Works involving clearing of a CEEC.</p> <p>Works involving clearing of an EEC.</p>	<p>Threshold</p> <p>Where there is any clearing of an CEEC in 'moderate to good' condition</p> <p>Where clearing of a EEC \geq 2 ha in 'moderate to good' condition</p>

	<p>Works involving clearing of VEC.</p> <p>Where clearing of VEC \geq 5 ha in 'moderate to good' condition</p> <p>Works involving clearing of any habitat for a known species credit fauna species or clearing of breeding habitat (as defined by the TBDC) for dual-credit fauna species (excluding exotic and planted vegetation that cannot be assigned to a plant community type)</p> <p>Where clearing \geq 1 ha in 'moderate to good' condition</p> <p>Works involving removal of known threatened flora species and their habitat</p> <p>Where loss of individuals is \geq10 or where clearing of habitat is \geq 1 ha</p> <p>Type 1 or Type 2 key fish habitats</p> <p>Where there is a net loss of habitat</p> <p>The TfNSW Biodiversity Offset Guidelines provides more detail about how these thresholds should be applied.</p>
TfNSW biodiversity offset threshold exclusions	<p>Activities excluded from the TfNSW Biodiversity Offset thresholds:</p> <ul style="list-style-type: none"> Exempt development under Infrastructure SEPP. Works on cleared land, plantations, exotic vegetation where it is unlikely there are threatened species or habitat present. Works within the disturbed zone or to maintain required operational clearances. Works within areas that are reasonably likely to naturally regenerate. Works involving clearing of vegetation planted as part of an infrastructure corridor landscaping program (this includes where threatened species or species comprising listed ecological communities have been used for landscaping purposes). Any project that is legally required to participate in the NSW Biodiversity Offset Scheme, requires a SIS under the FM Act or BC Act or is likely to have a significant impact on MNES. All projects requiring Part 5, Division 5.2 of the EP&A Act approval (SSI, CSSI) and all projects requiring development consent under Part 4 of the EP&A Act. Any project approved or determined or where an REF has been exhibited prior to the commencement of the Biodiversity Policy.
TfNSW Conservation Fund	<p>A Fund managed by TfNSW Safety, Environment and Regulation.</p> <p>The TfNSW Conservation Fund receives payments from projects that cannot meet the tree and hollow replacement requirements under the Biodiversity Policy within the project boundary or on land in proximity to the project and so elect to make a payment to the TfNSW Conservation Fund in accordance with the <i>Tree and Hollow Replacement Guidelines EMF-BD-GD-0129</i></p>
TfNSW tree and hollow replacement exclusions	<p>Activities excluded from the TfNSW tree and hollow replacement requirements:</p> <ul style="list-style-type: none"> Exempt development under the Infrastructure SEPP including emergency work. Projects requiring development consent under Part 4 of the EP&A Act. Works to remove a traffic hazard on or overhanging a public road. Works within the disturbed zone (road) or essential to maintain required operational clearances (rail). Works within areas that are reasonably likely to naturally regenerate. Non-native trees without amenity value. Trees that are being otherwise offset including projects that have triggered the Biodiversity Offset Scheme thresholds or the TfNSW biodiversity offset thresholds. <p>Any project approved or determined or where an REF has been exhibited prior to the commencement of the Biodiversity Policy.</p>
TBDC	<p>Threatened Biodiversity Data Collection managed by NSWDCCEW as part of NSW BioNet NSW Environment and Heritage. Requires Login. Contact Biodiversity Specialists</p>

Total Fund Deposit (TFD)	Is the amount paid to the Biodiversity Stewardship Payments Fund administered by the BCT. Proceeds of the TFD are used to fund ongoing conservation management of the land in accordance with BSA. TFD amounts are determined by an <u>Accredited Assessor</u> .
Transport	Transport Agencies are: <ul style="list-style-type: none"> • Transport for NSW • Department of Transport • Sydney Trains • State Transit • NSW Trains • Sydney Metro • The Point to Point Transport Commissioner
Tree and hollow replacement ratios	Trees and hollows will be replaced using the following ratios: <ul style="list-style-type: none"> • Very large tree (DBH greater than 100cm) – Plant a minimum 16 trees and provide three artificial hollows for every occupied hollow removed (assuming a 20% occupancy rate). • Large tree (DBH between 50cm and 100cm) - Plant minimum eight trees and provide three artificial hollows for every occupied hollow removed (assuming a 20% occupancy rate). • Medium tree (DBH greater than 20 cm, but less than 50cm) - Plant minimum four trees and provide three artificial hollows for every occupied hollow removed (assuming a 20% occupancy rate). • Small tree (DBH greater than 5cm but less than 20 cm) - Plant minimum two trees.
VEC	Vulnerable ecological community under the BC Act.

Appendix A: Biodiversity Offset Scheme thresholds

Biodiversity Offset Scheme thresholds for local and designated development under Part 4 of the EP&A Act are set out in the BC Act and Biodiversity Conservation Regulation and are reproduced below. Determining whether a Biodiversity Offset Scheme threshold has been met would be undertaken by an ecological consultant on behalf of TfNSW as part of the biodiversity assessment phase of the project.

The development involves:

1. Clearing of native vegetation that exceeds the following area thresholds

Minimum lot size of land	Area of clearing
Less than 1 hectare	0.25 hectare or more
Less than 40 hectare but not less than 1 hectare	0.5 hectare or more
Less than 1,000 hectare but not less than 40 hectare	1 hectare or more
1000 hectare or more	2 hectare or more

Clause 7.2 (2) Biodiversity Conservation Regulation 2017

2. Clearing of native vegetation or other prescribed actions⁵ on land included on the Biodiversity Values Map

The Biodiversity Values map includes:

- coastal wetlands and littoral rainforests
- core koala habitat
- Ramsar wetlands
- biodiverse riparian land
- high conservation value grasslands or other groundcover
- old-growth forests
- rainforests
- areas of outstanding biodiversity value (formerly critical habitat)
- land that has connectivity value or otherwise important biodiversity value.

BC regulation Clause 7.2 (1)

⁵ The other prescribed actions of potential relevance to Transport are actions causing impacts:

- to threatened species or ecological communities habitat present at karst, caves, crevices, cliffs and other geological features of significance, rocks, human made structures and non-native vegetation
- to the movement of threatened species across their range or that maintains their lifestyle
- to water quality, water bodies and hydrological processes
- arising from vehicle strikes.

These impacts are known as prescribed impacts and must be assessed by a BDAR where the action is undertaken on land included on the biodiversity values map. Biodiversity credits may be required to offset these impacts at the discretion of the consent authority.

The Biodiversity Values map can be viewed or downloaded from: [Biodiversity Values Map | NSW Environment and Heritage](#).

or

3. Is likely to have a significant impact on threatened species and ecological communities in accordance with the 5-part test of significance

Test for determining whether proposed development or activity likely to significantly affect threatened species or ecological communities, or their habitats.

1. The following is to be taken into account for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats:
 - (a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction
 - (b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:
 - (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction; or
 - (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction
 - (c) in relation to the habitat of a threatened species or ecological community:
 - (iii) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity; and

whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity; and

the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality:

- (d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)
- (e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

BC Act Section 7.3.

Appendix B: Variation rules

To participate in the Biodiversity Offset Scheme, TfNSW must adhere to the offset rules detailed in Clause 6.2 of the BC Regulation. There are two options relating to the retirement of credits:

- Retirement of the required number and class of like-for-like biodiversity credits (Section 6.3 of the BC Regulation), and
- Retirement of the required biodiversity credits in accordance with the variation rules (Section 6.4 of the BC Regulation).

The Biodiversity Offset Strategy (BAM trigger) must identify the like-for-like and variation options for all offset credit obligations. Table 1 below provides details for how to determine the options for like-for-like and variation rules, however this is also described in detail in Section 6.3 (like-for-like) and Section 6.4 (variation rules) of the BC Regulation 2017.

Satisfying a credit obligation through the retirement of credits must prioritise obtaining the requisite like-for-like credits. Where like-for-like credits are not available, the variation rules may be used for credit retirement, with consideration of the following ancillary rules:

- Ancillary rules: Impacts on threatened species and ecological communities excluded from application of variation rules
- Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules

Before the variation rules can be used, Section 6.4 of the BC Regulation states that a proponent must demonstrate reasonable steps have been taken to source like-for-like credits. Evidence of undertaking reasonable steps must be provided in the Biodiversity Offset Strategy. Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules (OEH 2017a) provides detail on the minimum requirements for applicants to need to show. In general, this may include:

- Checking the public register of biodiversity credits.
- Lodging an entry in the public register of persons seeking biodiversity credits for a minimum specified period.
- Contacting landholders who are entered on the public register of biodiversity stewardship site expressions of interest.

In accordance with Ancillary rules: Impacts on threatened species and ecological communities excluded from application of variation rules (OEH 2017b), impacts to threatened species or threatened ecological communities that are listed as critically endangered under the BC Act or the EPBC Act are excluded from application of the variation rules.

Table 1: Like-for-like and variation rules

Entity	Like-for-like	Variation
Ecosystem credits for PCTs that are TECs	<p><u>Any PCT:</u> Of the same TEC AND Hollow-bearing trees: same as impact AND IBRA: the same subregion as impact OR any adjoining subregion OR any subregion within 100 km of the outer edge of the impact site</p>	<p>All PCTs part of a CEEC listed under BC Act or EPBC Act are excluded from using the variation rules.</p> <p><u>EEC and VEC – any PCT:</u> In the same vegetation formation AND In the same or higher offset trading group AND Hollow-bearing trees: same as impact AND IBRA: same region as impact OR any subregion within 100 km of the outer edge of the impact site</p>
Ecosystem credits for PCTs that are not TECs	<p><u>Any PCT:</u> In the same vegetation class AND In the same per cent cleared category AND Hollow-bearing trees: same as impact AND IBRA: the same subregion as impact OR any adjoining subregion OR any subregion within 100 km of the outer edge of the impact site</p>	<p><u>Any PCT:</u> In the same vegetation formation AND In the same per cent cleared category AND Hollow-bearing trees: same as impact AND IBRA: same region as impact OR any subregion within 100 km of the outer edge of the impact site</p>
Threatened species credits	<p><u>Species credits for:</u> The same species AND Anywhere in NSW</p>	<p>All species listed as critically endangered under BC Act or EPBC Act are excluded from using the variation rules.</p> <p><u>Vulnerable and endangered species:</u> Any species in the same kingdom (ie plant and animal) with the same or higher listing under Part 4 of the BC Act AND IBRA: any adjoining subregion OR any subregion within 100 km of the outer edge of the impact site</p>

