# Biodiversity Assessment Method review

Public consultation

Department of Planning and Environment

NSW GOVERNMENT

Cover photo: A short necked stork on farmland, Kempsey. Jaime Plaza Van Roon/DPE

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# 1. About the Biodiversity Assessment Method review

The *Biodiversity Conservation Act 2016* (BC Act) commenced on 25 August 2017, establishing the Biodiversity Assessment Method (BAM). Section 6.9 of the BC Act requires the Minister to review the BAM as soon as possible after 5 years from its introduction and undertake public consultation in connection with the review. The Minister is to publish the prepared review and may subsequently amend or replace the BAM. Further consultation will occur if any BAM amendments are proposed after the review.

A broader review of the BC Act is currently under way. The BC Act review is led by independent experts Dr Ken Henry AC, supported by Mr Mike Mrdak AO, Dr John Keniry AM and Distinguished Professor Michelle Leishman. The BC Act review aims to evaluate whether the terms of the Act remain appropriate for securing its objective – to maintain a healthy, productive and resilient environment for the greatest wellbeing of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The BC Act provides the legislative requirements for the BAM. This interaction means there is a potential for the BC Act review recommendations to influence the BAM. To recognise this, the process and timing of the reviews are complementary.

## 1.1 BAM review public consultation timing

- Consultation paper released for 4-week public consultation
- 14 July 2023 to 11 August 2023

## 1.2 Have your say

The Department of Planning and Environment welcomes your submissions to the BAM review. To guide your input, the department has identified some key elements and focus questions, reflecting stakeholders' experience with the BAM and recommendations from the 2022 Parliamentary Inquiry into the Integrity of the Biodiversity Offsets Scheme. The views expressed do not necessarily reflect the position of government.

The scope of the review is not limited to these focus areas. We welcome feedback on other aspects of the BAM. Please include examples, data and documentation, where relevant, in your submission.

Submissions can be made:

### Online

Respond to the consultation questions online at www.environment.nsw.gov.au/get-involved/have-your-say

### By email

Email your submission to BAM.Consultation@environment.nsw.gov.au

### By post

Post your written submission to:

Biodiversity Assessment Method Review
Locked Bag 5022
Parramatta NSW 2124

### Closing date

11 August 2023

## 1.3 How submissions will be used (privacy statement)

Providing a submission is voluntary. The department will collect and use your submission to inform the review analysis, final report and recommendations to the government. Submissions may be incorporated into the final review report and recommendations for publishing. In these circumstances, personal information, such as name, address and contact details, will be removed before publication.

Submissions marked 'confidential', and those that raise legal or other concerns (e.g., privacy, defamation, compliance or appeal) will not be published. Views presented in submissions are the responsibility of the author of the submission.

There may be circumstances where the law requires the government to release the information in your submission, even if marked confidential, such as for law enforcement purposes or under *the Government Information (Public Access) Act 2009*.

# 2. What is the Biodiversity Assessment Method?

Under the Biodiversity Offsets Scheme, impacts to biodiversity values that cannot be avoided or further minimised are offset. The BAM provides a scientifically rigorous[i] and consistent method to identify and quantify biodiversity values. It assesses impacts on biodiversity values from a proposed development, activity, clearing or biodiversity certification. It is also used to assess gains in biodiversity values made through undertaking management actions under Biodiversity Stewardship Agreements at stewardship sites. The BAM is a mechanism to implement the biodiversity assessment provisions of the BC Act and Biodiversity Conservation Regulation 2017 (BC Regulation) by:

- establishing requirements for Biodiversity Assessment Reports
- quantifying habitat suitability and vegetation condition
- applying the hierarchy of avoid, minimise, offset
- quantifying biodiversity loss and gain as species and ecosystem credits
- calculating offsets to biodiversity impacts to a **no net loss** standard.

These biodiversity assessments must be undertaken by a person accredited under the Accreditation Scheme for the Application of the BAM Order[ii].

Different components of the BAM are required for different types of assessments. To accommodate this, the method has 3 stages:

**Stage 1 – Biodiversity assessment** – identifies and describes the biodiversity values of the land, such as the types of vegetation, threatened ecological communities, threatened species and their habitat. Habitat suitability for threatened species likely to occur at the site is assessed, and a vegetation integrity (VI) score is calculated by comparing vegetation structure, composition and function information collected during field surveys against a 'best on offer' benchmark score.

**Stage 2 – Impact assessment** – describes impacts on biodiversity from development or land clearing, how they will be avoided and minimised and if there are likely to be residual impacts. Residual impacts on the vegetation, threatened species or their habitat are quantified as species or ecosystem credits. Potential serious and irreversible impacts and impacts on biodiversity other than clearing vegetation (such as prescribed impacts on hydrology, impacts on habitat features such as caves, or impacts through noise, light and dust) are also assessed.

**Stage 3 – Improving biodiversity values** – predicts the biodiversity gains that may be achieved over 20 years through carrying out required (e.g. weed management) and optional (e.g. active restoration of vegetation and threatened species habitat) management activities on a stewardship site. Gain predictions account for improvements to vegetation condition and habitat resulting from management activities and, to a lesser extent, factor in the decline of biodiversity condition avoided due to management (termed 'averted loss'). The types of management will determine the predicated gain in vegetation condition and habitat suitability for threatened species, generating ecosystem and species credits.

The BAM is designed to a standard of no net loss. If the number and type of credits calculated from an impact assessment (Stages 1 and 2) are offset with the same number and type of credits generated at a stewardship site (Stages 1 and 3), a no net loss outcome will be achieved for biodiversity.

# 3. Legislative context of the Biodiversity Assessment Method

The BAM is established within a broader legislative framework. The provisions of the BC Act and Regulation inform and establish requirements for the BAM, as illustrated in Figure 1.

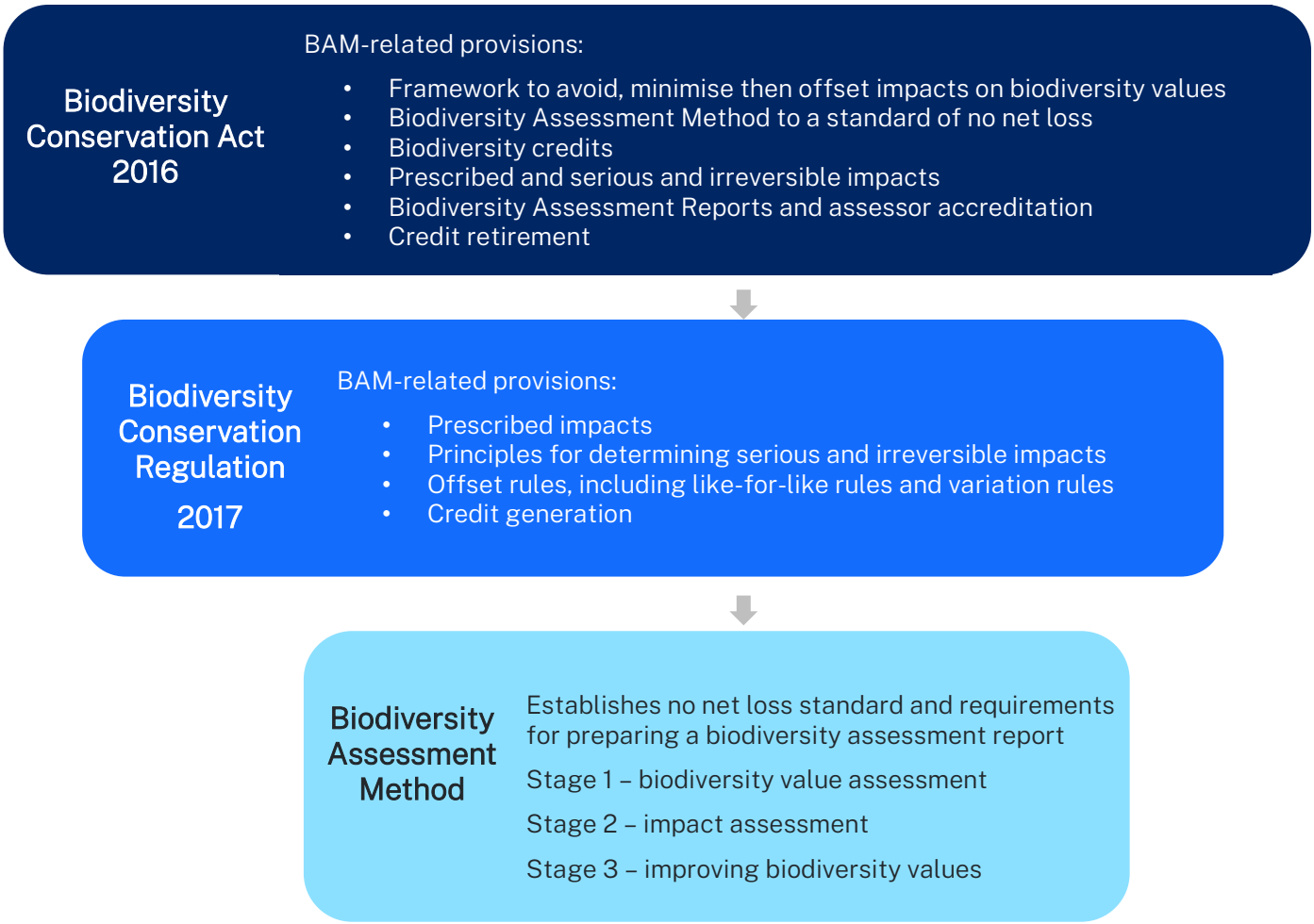


**Figure 1** **Legislative context of the Biodiversity Assessment Method**

# 4. Aims and principles guiding the Biodiversity Assessment Method review

The BAM has been developed based on learnings from over 25 years of offsetting in New South Wales and Australia, stakeholder feedback and national and international scientific literature about offset schemes and markets.

To ensure we continue to successfully build on our approach to biodiversity offsetting in New South Wales, recommendations for change should support the aims of maintaining a robust, transparent and repeatable method. A key principle for the review will be that the scientific integrity of the BAM is maintained.

In applying this principle, the review further aims to:

- consider opportunities to simplify the BAM
- improve transparency and consistency of processes and outcomes
- ensure the BAM is fit for purpose
- ensure the BAM is an appropriately flexible standardised assessment
- evaluate the adequacy of metrics and models embedded within the BAM.

# 5. Focus areas for the Biodiversity Assessment Method review

## 5.1 Consider opportunities to simplify the Biodiversity Assessment Method

### 5.1.1 Balancing practicality and rigour

The BAM seeks to achieve time and cost-effective assessments that reliably estimate vegetation condition and detect and identify threatened species, their habitat and threatened ecological communities. There may be simplifications to the BAM that do not undermine robustness and rigour.

**Focus question**

1. Do you have any suggestions for how BAM assessments could be made faster, cheaper or easier without compromising scientific rigour?

## 5.2 Improve transparency and consistency of processes and outcomes

### 5.2.1 Promoting the avoid and minimise hierarchy

The BC Act establishes a hierarchy of avoid, minimise and offset impacts to biodiversity values. Chapter 8 of the BAM sets out requirements to design and locate a development (or clearing) to avoid areas of biodiversity value, and document this in the Biodiversity Assessment Report.

The BAM review provides opportunities to:

- clarify the requirements to avoid and minimise impacts
- improve consistency in applying avoid and minimise requirements in assessments
- support increased transparency in decision making.

**Focus question**

2. What changes could be made to the BAM to clarify requirements and documentation for avoiding and minimising impacts, and to strengthen outcomes?

### 5.2.2 Assuring appropriate assessment of serious and irreversible impacts

In recognition that some threatened species and ecological communities are at risk of extinction, the BC Act requires consideration of potential serious and irreversible impacts (SAII) to biodiversity values. Clause 6.7 of the BC Regulation[iii] establishes 4 principles to identify SAII. The first 3 principles align with the International Union for Conservation of Nature (IUCN) red list criteria used internationally to identify critically endangered entities and inform their protection and management. The fourth principle recognises that, in some cases, at-risk entities may not respond well to management

(such as where key threats may include unmanageable diseases or key lifecycle phases of a species rely on irreplaceable landscape features).

Stage 2 of the BAM establishes additional assessment requirements for impacts that are likely to be serious and irreversible.

The assessment of SAII is challenging, in part because of data deficiencies or knowledge gaps relating to threatened entities and the nature of the assessment requirements. The BAM review provides an opportunity to consider amendments to better support SAII assessments.

**Focus question**

3. How could SAII assessments under the BAM be clarified or better supported to help improve transparency, consistency and outcomes?

## 5.3 Ensure the Biodiversity Assessment Method is fit for purpose

### 5.3.1 Achieving no net loss in the context of cumulative impacts

Under the BC Act, when establishing the BAM, the Minister is to adopt a standard that, in their opinion, will result in no net loss of biodiversity in New South Wales.

The BAM is a site-focussed assessment undertaken within the context of the broader landscape. For example, the BAM considers the condition and status of threatened entities under assessment. Where a serious and irreversible impact may occur, the BAM assesses the impact based on the broader distribution and/or population size of the entity at risk.

The assessment and approval of biodiversity impacts in New South Wales occurs under the planning framework. This means that biodiversity is considered alongside other environmental impacts under the *Environmental Planning and Assessment Act 1979* (EP&A Act) as part of the development consent process. For state significant development or infrastructure projects, cumulative impacts are a component of the environmental impact statement prepared under the EP&A Act and submitted along with the Biodiversity Assessment Report to the consent or approval authority.

The Parliamentary Inquiry into the Integrity of the Biodiversity Offsets Scheme recommended that the BAM account for cumulative loss arising from multiple developments in an area. The BAM review provides an opportunity to consider if the BAM is the appropriate mechanism to assess cumulative biodiversity impacts in an area proposed for development and, if so, what approach could be taken in the BAM to assess the cumulative biodiversity impact.

**Focus question**

4. Should the BAM require further consideration of cumulative biodiversity impacts in an area proposed for development? If so, do you have any recommendation for how this could be assessed?

## 5.4 Ensure the Biodiversity Assessment Method is an appropriately flexible standardised assessment

### 5.4.1 Applying the BAM at different scales and in different conditions

The BAM provides a standardised site scale assessment undertaken on a proposal-by-proposal basis. It is important that it is appropriate for all circumstances where biodiversity values are being assessed.

The BAM is applied to small- and large-scale proposals under varying and sometimes extreme conditions (e.g. drought). It encompasses some provisions to provide flexibility, such as streamlined assessment modules for low-risk proposals, scaling of elements of the method for larger areas and the use of more appropriate local data to establish condition benchmarks that may be relevant to a particular circumstance.

Sometimes, applying a standardised approach in a wide range of situations can be challenging. However, increasing flexibility can also add complexity and lead to poor outcomes.

Feedback to date indicates that the current BAM benchmarks, approaches to allocating plant community types, or how the vegetation integrity score is calculated may sometimes be leading to over- or under-estimates of vegetation condition, particularly in transition zones between plant communities or when assessing historically disturbed but stable plant communities (such as derived native grasslands).

The BAM review provides an opportunity to consider how well the current provisions operate to balance standardising the assessment of biodiversity values while maintaining flexibility.

**Focus questions**

5. Do you have any suggestions for improving how the BAM applies to very large or long, linear projects without increasing complexity?
6. Do you have any suggestions for how the BAM could be improved for applying in extreme conditions such as severe bushfire, prolonged flooding or prolonged drought while maintaining a consistent standard?
7. Do you have any suggestions for improving how the BAM applies in derived vegetation communities or transitions between different vegetation types without increasing complexity?

## 5.5 Evaluate the adequacy of metrics and models embedded within the Biodiversity Assessment Method

### 5.5.1 Ensuring appropriate gain and credits from management

The Parliamentary Inquiry into the Integrity of the Biodiversity Offsets Scheme recommended a review of the use of averted loss in gain calculations to account for decline associated with unmanaged sites, settings to limit credits for existing conservation obligations (additionality) and the value placed on landscape connectivity and preservation of high-quality habitat.

The BAM currently incentivises stewardship where there is the potential to improve biodiversity values with management, particularly active restoration management actions. However, there may be barriers to active restoration on sites, such as disproportionate costs versus credit yields.

To date, other mechanisms have been the focus for conserving and protecting high condition sites. Feedback suggests that there is interest in utilising the Biodiversity Offsets Scheme for managing good condition sites, but insufficient gain may be generated to justify establishing a stewardship agreement. Similarly, few credits generated under the BAM on low condition sites may be disincentivising restoration.

Credits are reduced under the BAM for existing conservation obligations, including if a Biodiversity Stewardship Agreement is varied to create additional credits. This may be discouraging the creation of species credits where management actions have improved the condition of the vegetation and provided additional threatened species habitat.

The BAM relies largely on improvements to vegetation condition from management to predict gain. However, some threatened species are where vegetation decline may not be the driving threat or limiting gain factor. For these species, other management actions may be better indicators of gain than vegetation condition improvement.

The BAM review provides an opportunity to consider additionality, gain and other metrics used by the BAM.

### Focus questions

8. Are there ways the BAM could better consider connectivity and encourage conservation of high biodiversity value/good condition sites?
9. Are there ways the BAM could better consider the gain achieved through active restoration to help incentivise protection of degraded areas?
10. Are there ways the BAM could better consider existing credit obligations?

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[i] Published scientific literature supporting data and approaches in the BAM can be found at Vegetation Condition Benchmarks | NSW Environment and Heritage

[ii] Accreditation Scheme for the Application of the BAM Order

[iii] Biodiversity Conservation Regulation 2017