

DEPARTMENT OF PLANNING, INDUSTRY & ENVIRONMENT

Changes to the Biodiversity Assessment Method from 2017 to 2020

Guidance for accredited assessors and local government



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Overview of changes to the Biodiversity Assessment Method from 2017 to 2020

The NSW Government has amended the Biodiversity Assessment Method (BAM) to improve its usability in assessing biodiversity values. BAM 2020 came into force 22 October 2020.

This guidance document lists the revisions made from BAM 2017 to BAM 2020.

For accredited assessors and local government staff who are familiar with BAM 2017, this document summarises the differences to be aware of when applying BAM 2020 to prepare or review Biodiversity Assessment Reports (BARs). It includes:

- general changes
- BAM section changes including the streamlined assessment modules
- new definitions added to BAM 2020 glossary
- revised definitions
- changes required to update a BAR originally prepared under BAM 2017 to align with BAM 2020 (as timeframes for transitional arrangements end).

For more information, read the 'Biodiversity Assessment Method 2020' fact sheet and visit the BAM 2020 page on our website to download the new BAM.

You can also find out about transitional arrangements for using the previous BAM and the release of BAM support documents such as operational manuals.

General changes

Topic	BAM 2020
Acronyms and abbreviations	 Added a table of acronyms and abbreviations (previously included amongst definitions in BAM 2017). The term 'BAM Credit Calculator' in BAM 2017 replaced with 'BAM Calculator' (BAM-C) in BAM 2020. Added the terms 'Biodiversity Conservation Trust' (BCT), 'Biodiversity Offsets Scheme' (BOS) and 'Threatened Biodiversity Data Collection' (TBDC) to BAM 2020. See page viii.
Section numbering and formatting	 Updated to meet accessibility standards. New referencing format: E.g. Chapter 5 Section 5.2 Subsection 5.2.2 Subsection 5.2.2(2.) Subsection 5.2.2(2.a.) Subsection 5.2.2(2.a2.c.). Reduced number of chapters therefore, section references have changed. BAM 2017 Chapter 1 and 2, 'Background to the BAM' and 'Overview of the BAM' combined into one Chapter – BAM 2020 Chapter 1. 'Identifying prescribed additional biodiversity impacts' was previously included in BAM 2017 Chapter 6, 'Assessing the habitat suitability for threatened species'. It is now a separate Chapter – BAM 2020 Chapter 6. Introductions to Stage 2 and 3 are no longer labelled as chapters. Added a new Chapter for 'Addressing the biodiversity impacts of biodiversity certification applications' - BAM 2020 Chapter 12. Appendix numbering replaced with lettering.
Definitions	See Appendix A for new and revised definitions.

Biodiversity Assessment Method section changes

Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
Subject land and assessment area		Sections 3-5	Worded to clarify information and mapping requirements for the subject land and assessment area. Section 3.1	If relevant, include in the Location Map all areas of planted native vegetation identified in accordance with Appendix D.
Landscape features	Identify landscape features	Section 4.2	Revised wording of karst, caves, crevices, cliffs, rocks and other geological features of significance for consistency throughout the BAM and to prevent confusion with prescribed impacts. Subsection 3.1.3(7.)	No change to BAR required.
	Map landscape features – NSW (Mitchell) Landscapes	Mitchell Landscapes section 4.2.1.3(h), 4.2.1.5 and glossary	'Renamed 'NSW (Mitchell) Landscapes' throughout BAM 2020. Required for all types of proposals except streamlined assessment module components listed in Subsection 3.1.3(10.).	No change to BAR required.
	Map landscape features - wetlands	Section 4.2.1.7	 Wetlands included with rivers, streams and estuaries. 'Important wetlands' defined in the glossary and included in 'wetlands'. 'Local wetlands' removed. Subsection 3.1.3(3. and 4.). 	No change to BAR required.
Vegetation integrity		Chapter 5	Clarified when native and exotic species are to be assessed. Chapter 4	 Potential change to BAR required: If any areas will change, check and update the Site Map to indicate areas that do not contain native vegetation. Provide justification to support your assessment that the vegetation is not native vegetation.

^{1.} This column does not prescribe all BAM 2020 requirements, only key changes or clarifications. For a complete checklist of minimum assessment requirements, go to BAM 2020 Appendix K, L or M.

Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 20201
		Section 5.2.1.17 and 5.3.1.6	Assessors must not identify native vegetation as a derived PCT. Assessors must identify the original PCT from which the derived PCT has developed. Section 4.2(3.).	 Potential change to BAR required: If relevant, reassign vegetation zones containing a 'derived' PCT to the most likely original PCT. Ensure this change is reflected throughout the BAR.
		Subsection 4.3.2 and glossary	Clarifed patch size is used to assess habitat suitability. It includes all areas of native vegetation regardless of whether or not it is intact. Glossary and subsection 4.3.2.	Ensure that patch size area includes all relevant areas of native vegetation.
Assess habitat suitability		Chapter 6	Clarified the steps involved and assessment options and requirements including assuming presence, obtaining an expert report, conducting a threatened species survey and/or applying an important habitat map. Chapter 5	No change to BAR required.
	Determine presence of a candidate species credit species	Section 6.3 and 6.4 refer to presence/absence of threatened species	Removed all references to 'absence' of a species. Replaced with 'species is assumed to be present' or 'species is present or likely to use suitable habitat'.	No change to BAR required.
		Section 6.4, Steps 1-3	Clarified when a species can be removed from or added to, the auto-generated list of species likely to occur on or use, the subject land and thereby requires assessment (Subsection 5.2.1, 5.2.2 and 5.2.3).	Generally no change to BAR required except: • where an assessor removes a species credit species from further assessment because its microhabitat requirements are absent, the BAR must be updated to provide evidence.

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
	Species polygon	Section 6.4 Step 5 and 6	Clarified species polygon steps and requirements for: • species measured by area • species measured by count • dual credit species where both measures may apply (to different types of habitat). Subsection 5.2.5	No change to BAR required.
	Threatened species survey requirements	Section 6.5	Clarified threatened species survey requirements (and expert report requirements where applicable). Section 5.3	No change to BAR required.
	Expert reports	Section 6.5.2	Clarified expert report requirements and when an expert report can be used. Section 5.3 Box 3	No change to BAR required.
Avoid or minimise impacts		Chapter 8	 Clarified inclusion of indirect impacts (Section 7.1) and prescribed impacts (Section 7.2). Clarified steps involved and provided examples of a range of considerations to be addressed. Chapter 7 	Potential change to BAR required: Update the BAR to clearly address avoiding and minimising indirect impacts.
Prescribed impacts		Section 8.2 Avoiding and minimising prescribed biodiversity impacts during project planning. Section 9.2 Assessing prescribed biodiversity impacts	 Clarified identification (Chapter 6); avoid and minimise (Chapter 7); assessment, mitigation and adaptive management requirements (Chapter 8) for prescribed impacts. Terminology for prescribed impacts now directly aligns with clause 6.1 of the BC Regulation. Clarified inclusion of direct and indirect prescribed impacts. These must be addressed in the Biodiversity Assessment Report (BAR). Clarified guidance on options for when biodiversity credits may be used to offset or mitigate prescribed impacts (Section 8.6). 	 Potential change to BAR required: If relevant, explicitly address the assessment requirements for prescribed impacts, including direct and indirect impacts. Consider offsetting any residual prescribed impacts.

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
Indirect impact	S	Section 9.1.4	 Clarified avoid and minimise (Chapter 7); assessment, mitigation and adaptive management requirements (Chapter 8) for indirect impacts. Indirect impacts must be included in the BAR and may require offsetting. Examples are included in the BAM. Clarified guidance on options for when biodiversity credits may be used to offset or mitigate indirect impacts (Section 8.6). This option is at the discretion of the assessor and decision-maker. Where indirect impacts cannot be avoided, minimised or mitigated, the assessor may generate an offset credit requirement, calculated on partial loss of vegetation. Assessors can use the partial vegetation loss option in the BAM-C. Refer to Release Notes for details. 	If relevant, explicitly address indirect impacts and consider offsetting any residual indirect impacts.
Serious and irreversible impacts		Section 10.2	 Entity-specific thresholds have been replaced with stronger impact assessment and reporting requirements. Assessors must address how a proposed impact will contribute to extinction risk of an serious and irreversible impact (SAII) entity against the four principles in the BC Regulation (e.g. geographic extent, population size, decline and response to management). Assessors can now recommend additions or deletions from the list of SAII entities and to demonstrate that the principle identifying the entity is at risk of a SAII is inaccurate. Section 9.1 	Change to BAR is required: • For each entity at risk of SAII, update the BAR to address the new assessment criteria.

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 20201
Stage 3 assessing gain in biodiversity values		Chapter 13 Table 8 Estimated annual probability of decline for each attribute	 Minor amendments to settings used to predict improvement in biodiversity values from management actions at biodiversity stewardship sites including: Rates of decline have increased for all composition attributes, all structure attributes except tree cover and the following function attributes: litter cover, tree regeneration, stem size classes. Broadening of high risk land definition (subsection 11.4.1(6.a-6.f.)). List of High Threat Weed species which may be effectively managed (published in the BAM-C). Added intrinsic rates of gain for the following vegetation integrity attributes: Composition – Other, Structure – Other and Function – Number of large trees and stem size classes. Intrinsic rates of increase/annual rate of decline tables removed from the BAM and published in the BAM-C. Chapter 11 	 Change to BAR is required: For a biodiversity stewardship assessment, ensure all credit calculations in the BAR are updated according to BAM 2020. Consider the revised definition of 'high risk land' and whether any high threat weeds are considered 'manageable'.
Improving biodiversity values		Section 13.3 Table 6 Required management actions and types of manageent activities for improving vegetation integrity and threatened species habitat at a biodiversity stewardship site	Revised the contents of Table 6 including additional monitoring requirements. Subsection 11.3.1 Table 6 Required management actions for improving vegetation integrity and threatened species habitat at a biodiversity stewardship site.	Potential change to BAR required: If relevant, address amended and additional monitoring requirements in accordance with the Biodiversity Conservation Trust guidance documents

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
Streamlined assessment modules	Paddock/scattered trees	 Requires ground cover to be <50% native (with >10% cover) where the foliage cover is <25% of benchmark or meets the 50 m rule from trees >20 cm DBH. Is silent on candidate (species credit) and SAII species preventing its application Assumes that trees <20 cm DBH do not contain hollows and therefore do not require assessment 	 Paddock trees renamed to 'scattered trees' – Appendix B. Application of the Scattered trees assessment module has been expanded. Revised definition - removed the reference to ground cover as less than 50% indigenous species. Enables wider application including areas where the native vegetation regulatory map does not apply including peri-urban and urban areas. Includes trees ≥5 cm DBH in the 50 m rule (instead of limiting them to >20 cm DBH). Identifies when the scattered tree module cannot be applied and 'standard' BAM must be used including where the tree itself is a threatened species, a candidate species credit species has been recorded using the tree as habitat and threatened species at risk of an SAII are present or likely to be present. Prevents streamlined assessment: by per cent foliage cover unless the land is regulated under the <i>Local Land Services Act 2013</i> (LLS Act) if the ground cover contains any native species unless they are on the widely cultivated list. Clarified the assessment of entities at risk of an SAII. Requires trees <20 cm DBH to be assessed for hollows and those containing hollows need to generate credits. 	 If assessment used the Paddock Tree module, ensure the subject land (or relevant part) meets one of the revised scattered tree definitions and does not trigger sections B.2 or B.4 which restrict the use of the module. If the module can still be applied, consider the revised credit requirements in accordance with Table 11.

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
Streamlined assessment modules	Small area assessments	 Cannot be applied to land identified by the Biodiversity Values Map Area clearing threshold: ≤5 ha for minimum lot size ≤40-<1000 ha, or ≤10 ha for minimum lot size ≥1000 ha 	 Amendments to small area module – Appendix C. Expanded to enable application to land identified by the Biodiversity Values Map (except where the biodiversity value is core koala habitat identified in a Plan of Management under the Koala SEPP). Reduced area clearing threshold for when it may be applied. ≤3 ha for minimum lot size ≤40 - <1000 ha, or ≤5 ha for minimum lot size ≥1000 ha. Ensures that a threatened ecological community (TEC), incidental recording of a threatened species on site and all species at risk of an SAII are assessed (i.e. species polygons prepared) and offset accordingly. Clarified assessment requirements for species credit species. Emphasised that assessors must still apply the hierarchy of avoiding and minimising impacts before considering offsetting residual impacts. 	 Potential change to BAR required: If relevant, consider the changes to area clearing limits in Table 12 for the application of this module. If the module can still be applied, address the requirements for TECs and entities at risk of SAII. Note also that incidental observation /recording of a threatened species on site will require offset. Clearly document, avoid, minimise and mitigate actions that have been applied before offsetting residual impacts.
	Planted native vegetation	N/A	 New streamlined assessment module for assessing planted native vegetation as habitat for threatened species - Appendix D. Established as a decision key. Identifies when it can and cannot be applied. Outlines threatened species assessment requirements including the need to apply section 8.4 of the BAM to mitigate and manage impacts on these species. Species credits are not required to offset the proposed impacts. 	BAM 2017 did not provide a streamlined assessment for planted native vegetation. If relevant, apply Appendix D.

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Topic	Detail	BAM 2017	BAM 2020	Requirements to update a BAR from BAM 2017 to BAM 2020 ¹
			 List of widely cultivated native species is being prepared – contact <u>bam.support@environment.nsw.gov.au</u> if propose to apply Appendix D.1(6.). The planted native vegetation streamlined assessment module is not yet available in BAM-C. Contact <u>bam.support@environment.nsw.gov.au</u> if you propose to apply this streamlined assessment. 	
Biodiversity certification	Appendices	N/A	New Appendix to support strategic biodiversity certification proposals. Appendix J provides a method to value land-based conservation measures (e.g. reservation of land and development controls) in terms of biodiversity credits.	 Potential change to BAR required: BAM 2017 did not provide this method. If relevant to the BCAR, apply Appendix J.
BAR requirements	Appendices	Appendix 10-12 list minimum information requirements including Table 12 for both streamlined assessment modules (paddock trees and small area)	 Appendices K, L and M provide a checklist of minimum information requirements for BARs. Checklists revised to directly align with each section of the BAM and should be used by assessors and decision-makers to ensure the BAR has been prepared in accordance with the minimum requirements of the BAM. Appendix L includes Tables 26-28 which provide separate checklists for each of the three streamlined assessment modules (scattered trees, small area and planted native vegetation). 	Ensure the BAR meets all relevant requirements in Appendix K, L or M.

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New definitions included in Biodiversity Assessment Method 2020

- Additional biodiversity impacts
- Approved conservation measure
- Area of occupancy
- Biodiversity Assessment Report
- Biodiversity Assessment Method Calculator
- Biodiversity Certification assessment area
- Condition attributes
- Decision-maker
- Direct impacts
- Dynamic weights
- Ecotone
- Extent of occurrence
- Extreme fluctuations
- Geographic limitations
- Habitat constraints
- Important habitat map
- Indirect impacts
- Manageable high threat weeds
- Microhabitat
- More appropriate local data
- No net loss
- NSW (Mitchell) Landscape
- Physiography
- Prescribed impact
- Protected animal
- Proposal
- Proposed conservation measure
- Retained land
- Serious and irreversible impact
- Species polygon
- Suitable habitat
- Threat defined locations
- Threatened entities
- Tree regeneration
- Vagrant species
- Widely cultivated native species

Existing definitions revised in Biodiversity Assessment Method 2020

Revised definition	BAM 2020
Patch size	Removed the term 'intact' native vegetation from the definition. The intent is to include any native vegetation which could provide habitat for native species. Therefore, the native vegetation does not need to be intact. Glossary and subsection 4.3.2.
Important wetlands	Revised definition in the glossary. 'Important wetlands' included in reference to 'wetlands' throughout the BAM.
NSW (Mitchell) landscapes	Renamed in the glossary as 'NSW (Mitchell) landscape' (previously 'Mitchell landscape').
Subject land and assessment area	Clarified that the subject land excludes the assessment area. Revised definitions in the glossary.
High threat weeds (previously 'High threat exotic plant cover')	Renamed and revised definition in the glossary.
Hollow bearing tree	Native species allocated to either the tree or shrub growth form groups are included and hollow bearing trees rooted within the plot must be included. Defined in glossary and described in subsection 4.3.4(12.).
Tree regeneration (previously 'regeneration')	Specifies living trees from the tree growth form group with a maximum stem diameter of <5cm regardless of height. Subsection 4.3.4(27.).
Native vegetation	Definition in glossary refers to s1.6 of the BC Act and s60B of the LLS Act and text is repeated in glossary for ease of reference.
Assessor/Accredited person	Defined in glossary. 'Assessor' used throughout the BAM.
Fallen logs	Specifies that fallen logs from native and exotic species are recorded. Defined in subsection 4.3.4(30.) and described in 4.3.4(29.)
Litter cover	Includes litter detached from exotic and native plant species regardless of whether it appears alive or dead. Defined in glossary and subsection 4.3.4(31. and 32.).