Biodiversity Stewardship Agreements: BAM Operational Manual – Stage 3 and the Ecological Monitoring Module



Questions and Answers

Topic: Ecological Monitoring Module (EMM)

Are there guidelines that clarify where to put long-term monitoring plots within a biodiversity stewardship site?

Yes. The Biodiversity Conservation Trust Ecological Monitoring Module – Operational manual (EMM Operational Manual; p8-12) outlines the stratification criteria for permanent monitoring plots within a biodiversity stewardship site. The stratification of these plots is identical to the stratification of development sites for assessment (i.e. Plant Community Type x condition state). In a biodiversity stewardship site, assessment plots or a subset of assessment plots at lower density can be used as permanent monitoring plots for biodiversity stewardship sites.

What is the link between the EMM Operational Manual and the Biodiversity Conservation Trust Ecological Monitoring Module (EMM) document published in June 2020?

The EMM (published in June 2020) is a separate document to the EMM Operational Manual. The EMM document provides a high-level overview of where the EMM sits within the BCT's operations and a justification for its implementation.

The EMM Operational Manual was published in February 2021 and provides detailed operational guidance on how to apply the EMM.

What happens when targets under the EMM are not met because not enough credits have been sold to allow active management to begin?

Baseline monitoring under the EMM begins when the biodiversity stewardship site starts active management. As ecological response targets are based on the predicted gains used to generate credits, they do not change - irrespective of delays to starting active management.

Ecological response targets are developed to guide adaptive management via the Biodiversity Stewardship Agreement (BSA) Management Plan Review and are not subject to compliance. There may be a variety of explanations for targets not being met, including declines that have occurred in the passive management period, stochastic events such as fire, etc.

How do EMM guidance documents relate to BSA assessments that were significantly progressed, but not lodged prior to EMM documents being published on 1 March?

At this early stage, in-progress BSA assessments are being addressed on a case-by-case basis. The Biodiversity Conservation Trust (BCT) is working with landholders throughout this process.

In-progress BSA assessments are required to incorporate interim monitoring requirements. These interim monitoring requirements are not too different to the monitoring requirements under the EMM. However, landholders should contact the BCT staff who are working on the application to negotiate a pathway forward that does not require substantial revision to the application.

Will the EMM and Monitoring Plan be applied to existing BioBanking agreements and BSAs? What about BSA applications that have already been submitted and are currently being assessed?



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No. The BCT only requires alignment of BioBanking agreements and BSAs submitted after 1 March 2021. There is no intention to require retrospective monitoring on older sites.

There are some sites in existing BSAs that do include monitoring in the Total Fund Deposit (TFD). The BCT may also undertake some targeted monitoring on BioBanking sites where it sees value in doing so.

Can an Excel template for Table 7 of the EMM Operational Manual be provided to Accredited Assessors with all calculations included?

The BCT will work on making this product available in the first half of 2021 to accredited assessors by 30 April 2021. In the interim, assessors can contact the BCT with questions on applying Table 7.

For monitoring at a biodiversity stewardship site, must the minimum number of plots per vegetation zone, as set out in BAM 2020, be used? This could significantly impact the TFD.

The EMM Operational Manual (Table 5) offers detailed guidance on plot densities. The plot densities required under the EMM are different to the plot densities required for BAM assessment. Plot density depends on management applications. The densities outlined in the BAM represent the highest possible densities required by the EMM, particularly in the case of very intensive management and poor starting position. Where such factors do not apply, the EMM will always require lower densities.

Will the EMM training field days be held in different BCT regions?

Planning for the training field days is still in its early stages. Currently, the BCT is assessing demand for training from assessors across different regions in NSW. If there is demand from other regions, the BCT will likely plan for additional field training days.

Topic: Biodiversity stewardship sites

What are the management plan requirements for biodiversity stewardship sites?

The BSA Management Plan template (the template) consists of seven sections, to be filled in by the Accredited Assessor, reviewed by the landholder, and included in the Biodiversity Stewardship Site Assessment Report (BSSAR). The template provides instructions, explaining the requirements of each section – instructions are highlighted in the orange boxes. The template should be prepared and used with the Total Fund Deposit Guideline for biodiversity stewardship agreements.

Further information on the biodiversity stewardship site management plan is provided in the BAM Operational Manual – Stage 3. Specific questions related to Management Plans, actions or requirements should be directed to the BCT mailbox.



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What is the correct shape and size of a biodiversity stewardship site? Is the minimum size for a biodiversity stewardship site five hectares? This is suggested in the Guidelines for use of conservation agreements as development consent conditions'.

The BCT does not strictly adhere to the five-hectare area minimum for a biodiversity stewardship site. There are a suite of other considerations that should be taken into account. Some examples include (but are not limited to):

- whether the site has connectivity or is isolated/fragmented (risk of reduced gene flow and site utilisation)
- can the site be adequately protected (vulnerability to edge effects, humans, invasive species etc.)

The BCT is developing guidance for determining the appropriateness of a proposed stewardship site. In the meantime, any questions or concerns regarding specific stewardship sites currently under consideration should be directed to the BCT mailbox.

Can preservation of small biodiversity stewardship sites provide significant and critical sites in a major connectivity corridor?

Yes. There are situations where a small biodiversity stewardship site may provide critical habitat or connectivity. Protecting such a site under a BSA may be appropriate. The BCT will take these factors into account when determining whether a BSA is the right pathway in such situations.

Where a highly mobile fauna species cannot be detected on a biodiversity stewardship site with suitable habitat, can an expert report be used to support potential presence?

Yes. However, the expert would be expected to consider information from recent surveys when forming their opinion. How the information was used should be documented in the expert report.

Is it possible for landowners, who are planning a development, to set up a BSA in a different area at the same time? Can they avoid paying the offsetting costs for the development in this way?

Landholders can undergo assessment for development and establish a BSA at the same time. They must work with the different consent authorities as part of that process, as follows:

- the BCT for BSAs,
- Local government for development assessments (DAs), and
- the Department's Planning and Assessment Group for major projects.

Landholders must meet the conditions of consent and BSA costs.

The Biodiversity Certification website provides information for establishing a BSA at the same time as assessing a development site, and how these two sites can relate to each other. The Biodiversity Certification process allows these two aspects of the scheme to apply simultaneously in certain contexts.

If an Accredited Assessor undertakes both a BSSAR and a Biodiversity Development Assessment Report (BDAR), the assessor must manage any actual, perceived or potential



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conflict of interest in accordance with the Assessor Code of Conduct. Some strategies for managing conflicts of interest can be found here.

Where can we find the Biodiversity Stewardship Site Management Plan Template?

The Biodiversity Stewardship Site Management Plan template, EMM and other resources for biodiversity stewardship sites, can be found under General Resources on the BCT website.

Where can we find the contact details for our local BCT support person in case we have any questions?

The BCT mailbox is the best way to contact the BCT.

Topic: Species polygons

How do you define a species polygon for forest owl species breeding habitat, where the expert report states that breeding habitat is likely to be present in the form of hollow bearing trees with suitably sized hollows?

All expert reports need to follow the guidance provided in Box 3 of the BAM 2020. The BAM 2020 Operational Manual – Stage 1 contains further advice that should be considered by experts when writing a report.

Forest owls are dual credit species under the BAM where the species credit component is hollow bearing trees with specific attributes required for breed, these, these are listed as habitat constraints in the Threatened Biodiversity Data Collection (TBDC). To generate species credits, the habitat constraint must be present on the site alongside an indication of breeding (also described in the TBDC). Therefore, it is not just the presence of suitable habitat that will result in credit generation, but the use of that habitat for breeding.

If an expert report is used in place of a survey, the consent authority will expect to see:

- 1. evidence of the habitat constraints for the species credit component (e.g. evidence of hollow bearing trees that are the correct height, that have hollows of the required size). Other suitable habitat features on the site would also need to be taken into consideration.
- 2. clear justification for their opinion that breeding would occur (e.g. previous breeding records, reference to grey literature, or past surveys and other sources of observation information).

Consideration of the life history or ecology of the species would also be required. For example, it may be that only one suitable tree, per a given number of hectares, is likely to support breeding for this species (because it has a large home range, is territorial etc). This would need to be identified in the expert report.

Finally, if the expert deems that breeding habitat is present on the site and breeding is likely to occur, then the design of the species polygon would apply the same requirements in the TBDC. In this case, this would mean that the nest tree is buffered and that the species credits are generated based on that buffered area.



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What area do you map as the species polygon for a Powerful Owl nest tree? A circular buffer of a 100-metre radius around the nest tree should be mapped as the species polygon. This information is found in the general notes field of the TBDC. Similar information is provided for all large forest owl species in their TBDC profiles.

For Powerful Owl, why are only active nest trees included in the species polygon mapping? Shouldn't nest/roost trees that have a history of use be included if the breeding pair are using habitats within their range? Why are only active trees important for management?

Powerful Owls are dual credit species - their breeding habitat is a species credit (requires survey) and their foraging habitat is an ecosystem credit (no survey required). Therefore, breeding and foraging habitat are both offset but under different credit requirements.

In general, species credits species require survey, expert report or can be assumed to be present (development only) at a site. Where surveys that have been undertaken within the last five years and meet the requirements of the BAM, outcomes can be used in place of onsite survey. Please refer to section 3.4 of the BAM 2020 Operational Manual – Stage 1 for further information. The specific requirements to determine breeding habitat for Powerful Owls are provided in the TBDC.

Topic: Total Fund Deposit (TFD)

What is the time lag between the establishment of a BSA and fulfilment of the TFD?

The time lag depends on:

- whether there are buyers for the credits being generated by a BSA, and
- the price of the credits and whether they will reach the TFD.

For example, if a site has sold only a limited number of credits and there are few buyers, the site might sit in passive management for a long time. It is therefore ideal to have buyers lined up when entering into a BSA. This will help ensure the TFD is reached, which will allow the BSA to begin active management.

Supporting the EMM has seen a resulting increase in the value of the TFD. Often, the value of the TFD is higher than the value of the species credits generated. Will species credit prices in the Biodiversity Offset Payment Calculator (BOPC) be addressed once the EMM becomes mandatory?

The BCT has done modelling which shows scenarios where monitoring requirements under the EMM may be very expensive relative to credit value. For example, there may be a small site generating a small number of species credits where the effort required to monitor that species is very high. In these cases, the BCT is willing to negotiate a more cost-effective approach with landholders.

The management costs for a species in the TFD should be based on the threats and pressures operating on the site in relation to the species. Therefore, they will be site and species specific.



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The BOPC is designed to estimate the cost to the BCT to acquit credits paid into the Biodiversity Conservation Fund. The BOPC does this by taking into consideration market trades for these, or similar, credit types.

Topic: Manageable High Threat Weeds (HTW)

What is the process for getting additional manageable HTW species listed?

The Department is currently developing a process to update the Manageable High Threat Weeds list. It will likely be similar to the process by which the original list was created. When finalised, we will confirm this process via the Assessor Updates.

In the meantime, Accredited Assessors should contact the BAM Support mailbox if they consider a high threat weed (HTW) species should be included on the list.

Importantly, only those species already included in the published Manageable High Threat Weeds list can be used to reduce HTW cover scores.

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