Area clearing threshold technical explanation

Department of Planning and Environment

Acknowledgement of Country

The Department of Planning and Environment acknowledges the Traditional Custodians of the lands where we work and live.

We pay our respects to Elders past, present and emerging.

This resource may contain images or names of deceased persons in photographs or historical content.

Cover photo: Farmland and native vegetation in the Illawarra region. Michael Van Ewijk/DPE

Find out more at:

environment.nsw.gov.au

Contents

List of tables

List of figures

Introduction

This document explains how the Biodiversity Values Map and Threshold (BMAT) Tool determines the native vegetation area clearing threshold and provides a range of examples to explain the process.

The Biodiversity Conservation Regulation 2017 sets out threshold levels for when the Biodiversity Offsets Scheme will be triggered. The threshold has 2 triggers:

1. whether the amount of native vegetation being cleared exceeds a threshold area, referred to in this document as the 'area clearing threshold'
2. whether the impacts occur on an area mapped on the Biodiversity Values Map published by the Environment Agency Head.

If clearing and other impacts prescribed by clause 6.1 of the Biodiversity Conservation Regulation 2017 exceed either trigger, the Biodiversity Offset Scheme applies to the proposed development.

The area clearing threshold is determined by the minimum lot size (MLS) that applies to the lot(s) on which the proposed development occurs and the location of development within the lot(s). If the land on which the proposed development is to be carried out comprises different areas of land with different minimum lot sizes, the MLS used for the trigger is the smaller or smallest of those minimum lot sizes.

The area clearing threshold applies to all proposed native vegetation clearing associated with a proposal, regardless of whether this clearing is across multiple lots. For proposed subdivisions, the clearing area must include all future clearing, including roads and asset protection zones likely to be required for the intended use of the land after it is subdivided.

When using the BMAT Tool to draw the polygon to represent the footprint of their proposed development, proponents must draw the polygon as accurately as possible to enable the tool to determine the appropriate clearing area threshold. The BMAT Tool report can be provided to the consent authority, who should check the polygon as drawn in the report against the development application.

Biodiversity Values Map and Threshold Tool uses 2 minimum lot size methods

The area clearing threshold is determined by the minimum lot size (MLS). Depending on the lot size maps included in local environment plans (LEPs), the BMAT Tool uses one of 2 methods to determine MLS: the LEP method or the actual lot size method.

Local environmental plan method

Local environment plans that are developed by councils can include lot size maps that specify the minimum lot size for subdivision of land. Areas with different specified minimum lot sizes are shown in different colours and include a figure that is the MLS (in hectares or metres squared). Figure 1 shows a typical example of part of a lot size map from an LEP with minimum lot sizes ranging from 450 m^2 to 4,000 m^2.

Figure 1   **Example of an LEP lot size map specifying different minimum lot sizes over part of the land within the LEP**

Note that some lots may be smaller than that specified by the LEP as these lots were subdivided prior to the LEP lot size map being developed. In these instances, the BMAT Tool will still use the MLS specified by the LEP to determine the MLS for the development proposal.

LEP lot size maps are one of the layers that are included in the BMAT Tool that can be switched on and off. Refer to the *Biodiversity Values Map and Threshold Tool user guide* (DPE 2022, referred to here as the BMAT user guide) on how to do this.

Actual lot size method

Local environment plans lot size maps generally don't cover all the local government area (LGA). Where the proposed development occurs on land that is not covered by the LEP lot size map, the **actual** size of the lot is used to determine the MLS. As can be seen from Figure 1, some lots may partially be within land on the LEP lot size map and partially on land outside the lot size map. In these situations, the BMAT Tool selects the smallest MLS.

Four stages for determining the area clearing threshold

To generate a BMAT Tool report, you must use the polygon tool to draw a shape that includes the land within the proposed development, that is, the 'development footprint' (refer to the BMAT user guide). The BMAT Tool overlays your development footprint with the LEP lot size map to determine the minimum lot size method and associated MLS. The area clearing threshold is then determined based on the MLS.

There are 4 stages in the BMAT Tool process.

Stage 1 – Determine the local environment plan minimum lot size status of each of the lots that fall within, or partially within the development footprint

This involves intersecting each of the lots that contain the development footprint with the LEP lot size map to determine whether the LEP method or the actual lot size method applies.

As can be seen from Figure 1, the boundaries of LEP lot size maps coincide with lot boundaries (cadastre) in some, but not all areas. In some instances, the boundaries may follow some other landscape feature. There are also situations where it appears that it was intended that the LEP MLS boundaries follow actual lot boundaries, but there is a misalignment between the 2.

The BMAT Tool is unable to determine whether the lack of alignment between the LEP lot size map and cadastre is intentional or not. For this reason, the BMAT Tool makes a '10% allowance' for assigning lots to either the LEP method or the actual lot size method. This means that lots can be assigned to one of 3 categories:

1. LEP MLS specified – where >90% of the lot is on the LEP lot size map and has a specified MLS
2. partially LEP specified – where the lot straddles both LEP specified and not specified (10–90% inclusive of the lot is on the LEP lot size map)
3. not specified in LEP – where <10% of the lot is on the LEP lot size map.

Stage 2 – Determine the proportion of the development footprint that occurs in a local environment plan specified area

The development footprint is intersected with the LEP lot size map. The proportion of the development footprint in the lot size map determines which MLS method is used, as follows:

- if all the development footprint occurs on land **on** the lot size map, the MLS method will be the LEP method
- if the development footprint is entirely on land **not** on the lot size map, then the MLS method will be the actual lot size method
- where the footprint occurs **partially** on the lot size map, then the MLS method is determined in stage 3.

Stage 3 – Determine the smallest of the minimum lot size for all the lot(s) containing the footprint

The way this is done varies depending on whether all or some of the lots containing the footprint overlap with the LEP lot size map.

1. Where **all** the lots within the development footprint are **entirely contained within** the LEP lot size map, the BMAT Tool:
    a. creates a **list** of the LEP minimum lot sizes
    b. chooses the **smallest** minimum lot size.
2. Where some of the lots **overlap** with the LEP lot size map, the BMAT Tool:
    a. creates a list of the lots in the development footprint
    b. for each lot, determines the MLS method. For each lot in the list, there are 3 possible outcomes:
        i. **method = LEP**. Determine the MLS from the LEP lot size map. Actual lot size is not considered
        ii. **method = actual lot size**. Determine the MLS from the lot database (entire area of lot is used). LEP MLS is not considered
        iii. **method = smallest of LEP MLS and actual lot size**. The lot size method is the smallest of the area specified on the LEP lot size map and the actual lot size
    c. chooses the **smallest** minimum lot size of all lots in the list.
3. Where **all** the lots within the development footprint are **entirely outside** the LEP lot size map, the BMAT Tool:
    a. creates a **list** of the actual lot sizes
    b. chooses the **smallest** actual lot size.

Stage 4 - Determine the area clearing threshold

Using the smallest MLS identified in stage 3, thresholds in Table 1 are used to determine the area clearing threshold (column 2). For example, the clearing threshold for lots <1 ha is 0.25 ha.

Table 1   Area clearing thresholds

Minimum lot size of the land	Threshold for clearing, above which the *Biodiversity assessment method* and Biodiversity Offsets Scheme apply
Less than 1 ha	0.25 ha or more
1 ha to less than 40 ha	0.5 ha or more
40 ha to less than 1,000 ha	1 ha or more
1,000 ha or more	2 ha or more

Source: Biodiversity Conservation Regulation 2017 cl. 7.2 (4).

Illustrated examples of how the area clearing threshold is determined are provided in **Appendix A**.

Biodiversity Values Map and Threshold Tool report

The evaluation report generated by the BMAT Tool (see example in Appendix B) will indicate whether the proposal is likely to impact on land within the Biodiversity Values Map or exceed a native vegetation area clearing threshold.

The BMAT Tool uses the Native Vegetation Area Clearing Estimate (NVACE) data layer (see the 'More information' section) to calculate the proposed area of clearing and can help to determine the area clearing threshold. The NVACE layer is not a regulatory map (unlike the Biodiversity Values Map), but has been developed to guide proponents in their assessment of clearing of native vegetation.

The tool assists developers, landholders and consent authorities to determine if proposed development or clearing activates the Biodiversity Offset Scheme. You can use the BMAT Tool to search for an address or lot and deposited plan (DP) number, and display the type of biodiversity values occurring at a location. The tool can also produce a report stating whether the Biodiversity Offset Scheme threshold is exceeded and whether a biodiversity development assessment report is required. There are 2 pathways for determining whether or not a biodiversity development assessment report is required for a proposed development:

1. the proposed development is within an area mapped on the Biodiversity Values Map
2. the native vegetation area clearing threshold is exceeded.

The BMAT Tool report assesses both determination pathways and provides a definitive response on whether or not a biodiversity development assessment report is required. Proponents can use the BMAT Tool report to supply evidence to a consent authority as a guide for assessing and determining development applications.

If desired, the BMAT Tool allows users to upload polygons saved as a KML or shapefile. Shapefiles can be created in ArcGIS or Google Earth and uploaded to the BMAT Tool to check if a proposed development footprint will activate the Biodiversity Offset Scheme.

The BMAT Tool is a guidance tool only. Ultimately it will be the determining authority who will form the conclusion that the area of impact has been accurately assessed against the threshold pathways.

Find out more about the Biodiversity Offset Scheme entry requirements on our website (see link in the 'More information' section below).

Appendix A: Examples of how the clearing area threshold is determined

The MLS method is determined by 2 factors:

1. The extent to which the lot(s) that contains the development footprint is covered by the LEP lot size map (i.e. LEP MLS status of lot(s). X axis in Table 2).
2. The extent to which the development footprint is covered by the LEP lot size map (i.e. LEP MLS per cent cover within development footprint. Y axis in Table 2).

The combination of these 2 factors can lead to 9 different scenarios as shown in the matrix in Table 2.

Table 2   Minimum lot size (MLS) method matrix

	LEP MLS status of lot(s)		
	Lot(s) are LEP MLS specified: >90% of the lot is on the LEP lot size map and has a specified MLS	Lot(s) are partially LEP specified: lot straddles both LEP specified and not specified (10–90% inclusive of the lot is on the LEP lot size map)	Lot(s) are not specified by LEP: <10% of the lot is on the LEP lot size map
100% of development footprint is specified by LEP	LEP method (Examples 1, 2 & 3)	LEP method (Example 6)	LEP method (Example 10)
>0% but <100% of development footprint is specified by LEP	LEP method (Example 4)	Smallest of LEP MLS and actual lot size (Examples 7 and 8)	Actual lot size method (Examples 11 & 12)
0% of development footprint is specified by LEP	Actual lot size method (Example 5)	Actual lot size method (Example 9)	Actual lot size method (Examples 13 & 14)

Examples are provided below to illustrate how the MLS method, MLS and clearing area threshold is determined in each of these scenarios. The examples show the lot boundaries in white and the development footprints (as would be drawn by the proponent using the BMAT Tool) in yellow. The examples below do not indicate whether the area clearing threshold has been exceeded or not, just what the threshold is. The area of native vegetation within the development footprint is needed to determine if the area clearing threshold has been exceeded.

Local environment plan minimum lot size specified

Where >90% of the lot(s) are on the LEP lot size map

Five examples are provided:

- examples 1, 2 and 3, where 100% of the footprint is within an LEP MLS specified area
- example 4, where less than 100% of the footprint is within an LEP MLS specified area
- example 5, where none of the footprint is within an LEP MLS specified area.

Example 1: 100% of footprint in single LEP MLS specified area

LEP lot size map specifies MLS as 100 ha, see Figure 2. Using the area clearing thresholds in Table 1 above, as the MLS is >40 ha and <1,000 ha, the area clearing threshold is 1 ha.

Figure 2   Single lot covered by one LEP lot size map MLS zone

Example 1:

- MLS method = LEP method
- MLS = 100 ha
- Area clearing threshold = 1.0 ha

Example 2: Single lot, split by LEP MLS zones

In this example, in a large lot residential area, the development footprint is on a single lot, split by LEP MLS zones (Figure 3). The south-west part of the lot specifies an MLS of 4,000 m^2, whereas the north-east part is 40 ha. Therefore, the MLS for the purposes of the area clearing threshold is the smaller of the 2 MLS zones, that is, 4,000 m^2 (0.4 ha).
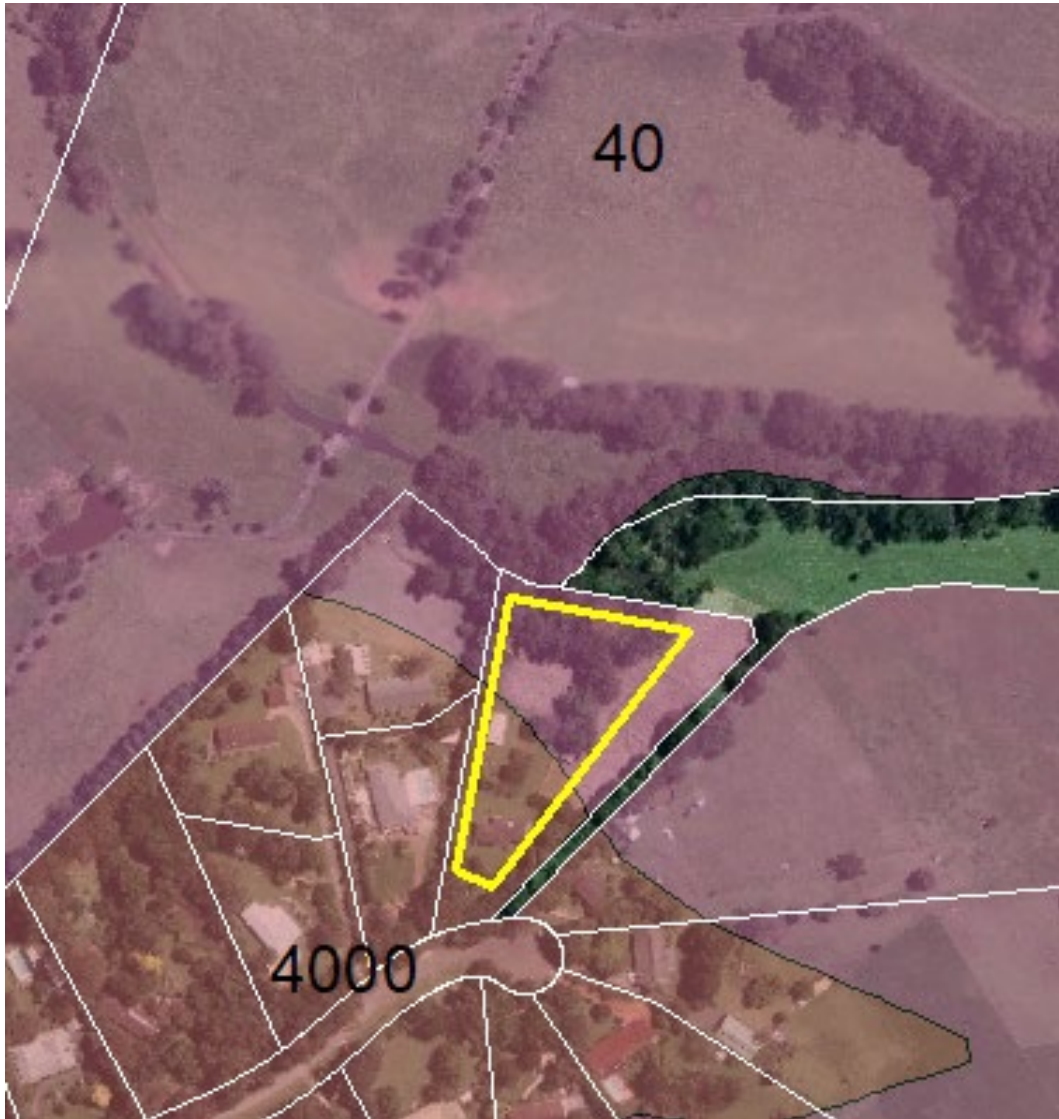
Figure 3   **Single lot with 2 MLSs specified in the LEP lot size map**

Example 2:
- MLS method = LEP method
- MLS:
  - 2 are specified – 4,000 m^2 (0.4 ha) and 40 ha
  - 4,000 m^2 chosen as it is the smallest MLS
- Area clearing threshold = 0.25 ha

Example 3: Multiple lots that are covered by the LEP MLS map

The development footprint occurs over 3 lots that have a specified minimum lot size of 40 ha by LEP (Figure 4)
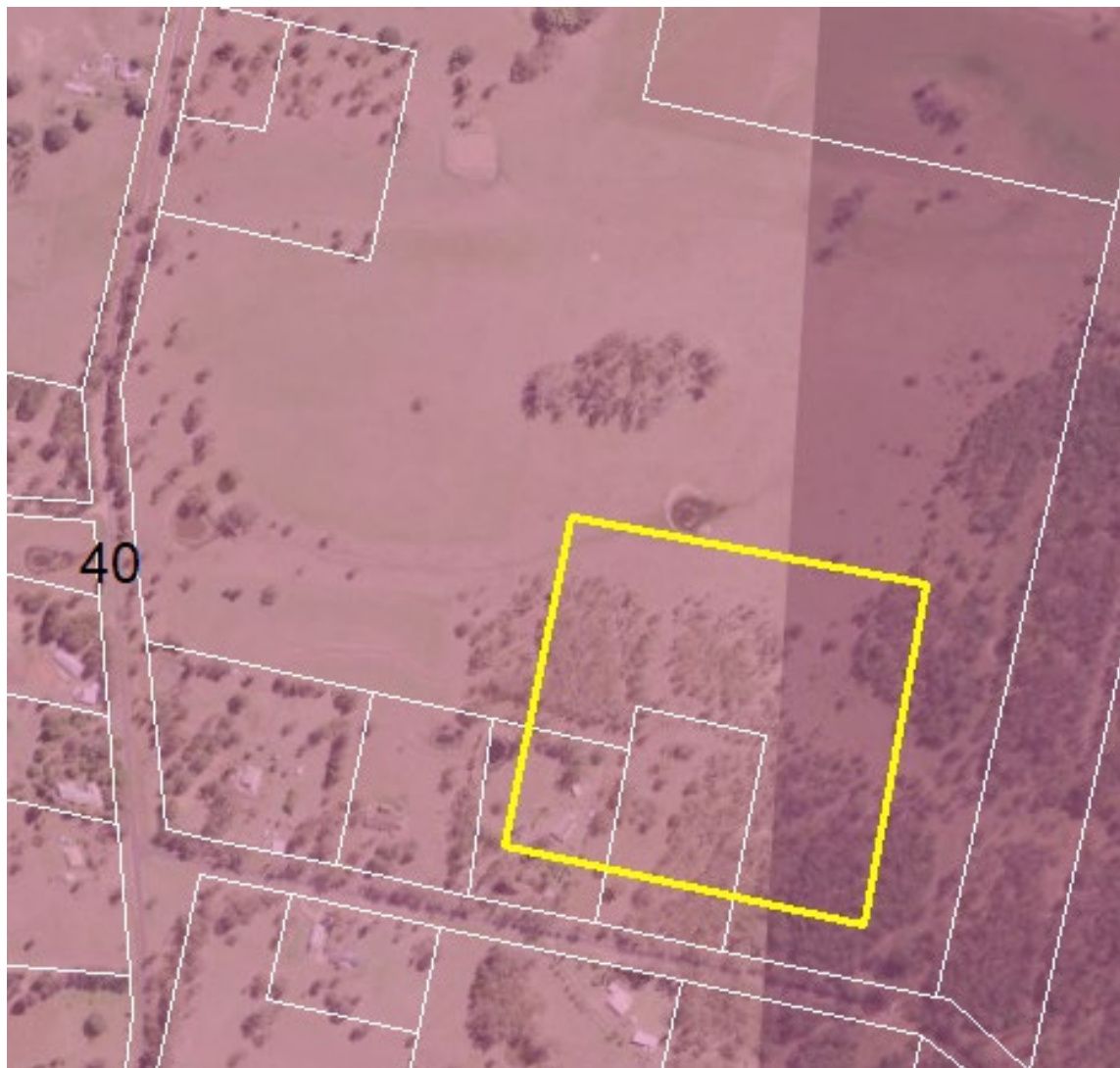
Figure 4   Multiple lots with a single MLS specified in the LEP lot size map

Example 3:

- MLS method = LEP method
- MLS = 40 ha
- Area clearing threshold = 1 ha

Example 4: Lot straddles LEP MLS area and footprint extends into non-LEP specified area

In this example, >90% of the lot is covered by the LEP lot size map, and it is likely that the intention is that LEP should cover 100% of the lot, therefore, the MLS method is the LEP method. Greater than 0% and <100% of the footprint is in the area covered by the LEP lot size map. The LEP MLS is 40 ha (Figure 5).
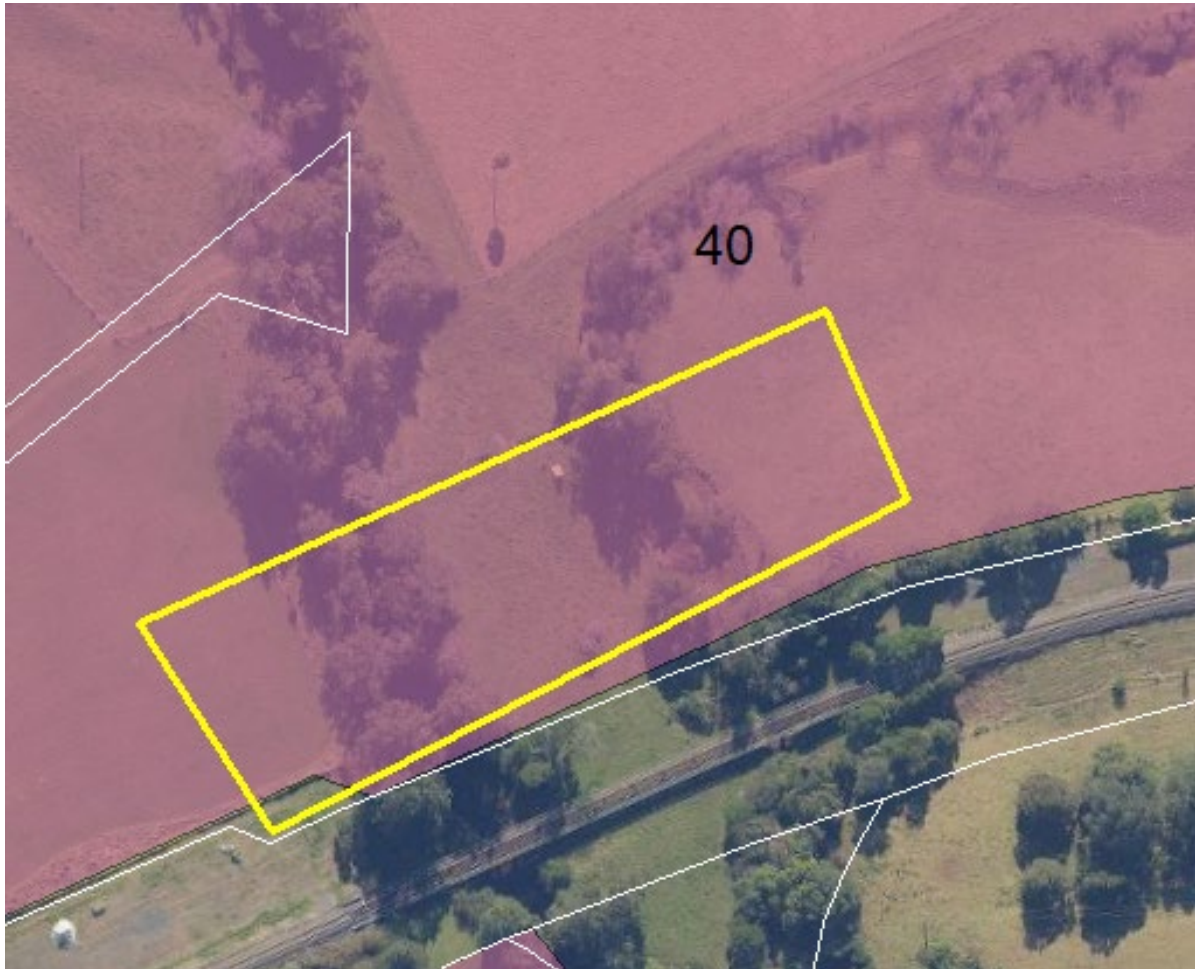
Figure 5   Footprint straddles LEP MLS specified and non-specified area

Example 4:

- MLS method = LEP method
- MLS = 40 ha
- Area clearing threshold = 1 ha

Example 5: > 90% of the lot is within the LEP MLS specified area but 0% of the footprint is in this area

In this example, >90% of the lot is covered by the LEP lot size map that specifies an MLS of 40 ha, but none of the development footprint is in this area (Figure 6). Therefore, the MLS method is the actual lot size method which is 25.13 ha. In this case the area clearing threshold is 0.5 ha. This scenario is not likely to occur very often.

Figure 6   Footprint outside the LEP MLS specified area

Example 5:

- MLS method = actual lot size method
- MLS = 25.13 ha
- Area clearing threshold = 0.5 ha

Partially local environment plan specified

Lot straddles both LEP specified and not specified MLS (10–90% inclusive of the lot is on the LEP lot size map)

In these examples, the subject lot is split by an LEP MLS boundary, which intentionally does not follow the lot boundary (Figure 7). That is, the partial LEP lot size map coverage is not a result of a misalignment with the cadastre.

Example 6: Development footprint is 100% within LEP specified area

Figure 7   **Lot partially covered by the LEP lot size map – footprint 100% in LEP lot size map**

Example 6:

- MLS method = LEP method
- MLS = 40 ha
- Area clearing threshold = 1 ha

Example 7: Development footprint straddles LEP and non-LEP specified areas (>0% to <100%)

In this example, the development footprint straddles an area covered by the LEP lot size map and an area not covered by the lot size map (Figure 8).

Figure 8   **Lot partially covered by the LEP lot size map – footprint straddles LEP and non-LEP specified area**

In this case, the smallest of the LEP and actual lot size methods is used to determine the MLS (Table 4). In this example, the MLS is 16.2 ha and the area clearing threshold is 0.5 ha.

Table 4   **Smallest of LEP and actual lot size methods**

Lot part	Method	MLS	Potential threshold	Final (smaller) threshold
Western	LEP	40 ha	1 ha	
Eastern	Actual lot size	16.2 ha	0.5 ha	0.5 ha

Example 8: Development footprint extends over 2 lots – one specified in the LEP, the other not specified

In this example, the development footprint extends across 2 lots. The western lot is largely covered by LEP MLS 40 ha and the eastern lot is not in an LEP specified area (Figure 9).

Figure 9   Multiple lots – one LEP specified the other not specified

The 2 lots are considered separately, and the results are shown in Table 5. The eastern lot has a smaller lot size than the MLS specified for the western lot, therefore the size of the eastern lot is used to determine the clearing area threshold.

Table 5   Clearing area thresholds

Lot part	MLS method	MLS	Potential threshold	Final (smaller) threshold
Western	LEP	40 ha	1.0 ha	
Eastern	Actual lot size	5.4 ha	0.5 ha	0.5 ha

Example 9: 0% of development footprint within the LEP specified area

Lot partially covered by LEP MLS but 0% of the footprint is within the LEP specified area (Figure 10).

Figure 10   **Lot partially covered by LEP MLS but 0% of footprint within the LEP specified area**

Example 9

- MLS method = actual lot size method
- MLS = 16.2 ha
- Area clearing threshold = 0.5 ha

Not specified by local environment plan

Where <10% of the lot is on the LEP lot size map

Example 10: 100% of the footprint is within the LEP specified area

LEP MLS boundary is a different shape to the cadastre (Figure 11). Assumed that the LEP lot size map boundary is derived from environmental or landscape features. LEP specifies MLS of 40 ha.
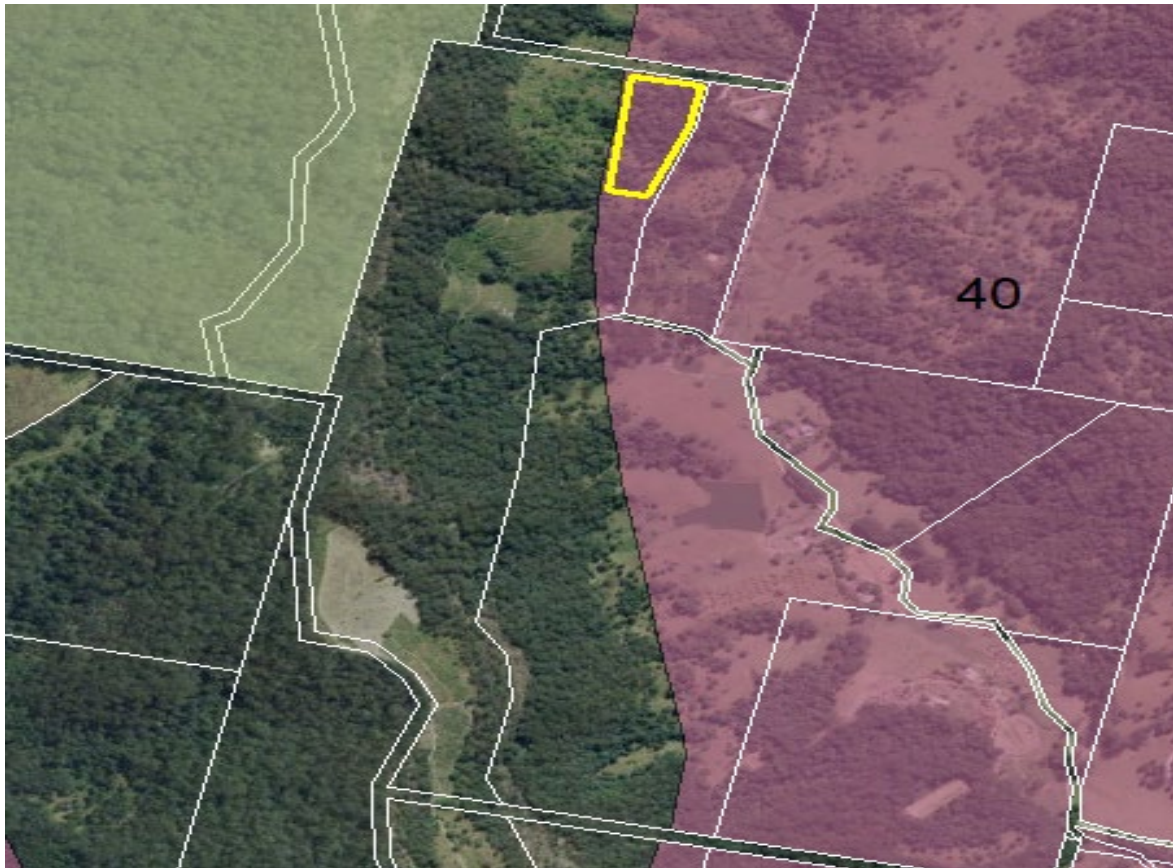

Figure 11   Footprint 100% within the LEP specified area

Example 10:

- MLS method = LEP method
- MLS = 40 ha
- Area clearing threshold = 1 ha

Example 11 Development footprint is majority (>90%) outside LEP specified area

In this example, the lot is partially specified by LEP, with a small strip of 450 m^2 specified in the LEP MLS included along southern boundary (Figure 12).

Figure 12   Development footprint is majority (>90%) outside LEP lot size map

Example 11:

- MLS method = actual lot size method
- MLS = 3.1 ha
- Area clearing threshold = 0.5 ha

Examples where there is a potential misalignment of LEP lot size map and cadastre

Example 12: <10% of the footprint is within the LEP specified area

Less than 10% of the lot is covered by the LEP lot size map and appears that this is a misalignment (Figure 13). The size of the actual lot is 16.02 ha.

Figure 13   **Potential misalignment between the LEP lot size map and cadastre – small part of footprint in LEP specified area**

Example 12:

- MLS method = actual lot size method
- MLS = 16.02 ha
- Area clearing threshold = 0.5 ha

Example 13: 0% of the footprint is with the LEP specified area

Figure 14 **Potential misalignment between the LEP lot size map and cadastre – 0% of footprint in LEP specified area**

Example 13:

- MLS method = actual lot size method
- MLS = 16.02 ha
- Area clearing threshold = 0.5 ha

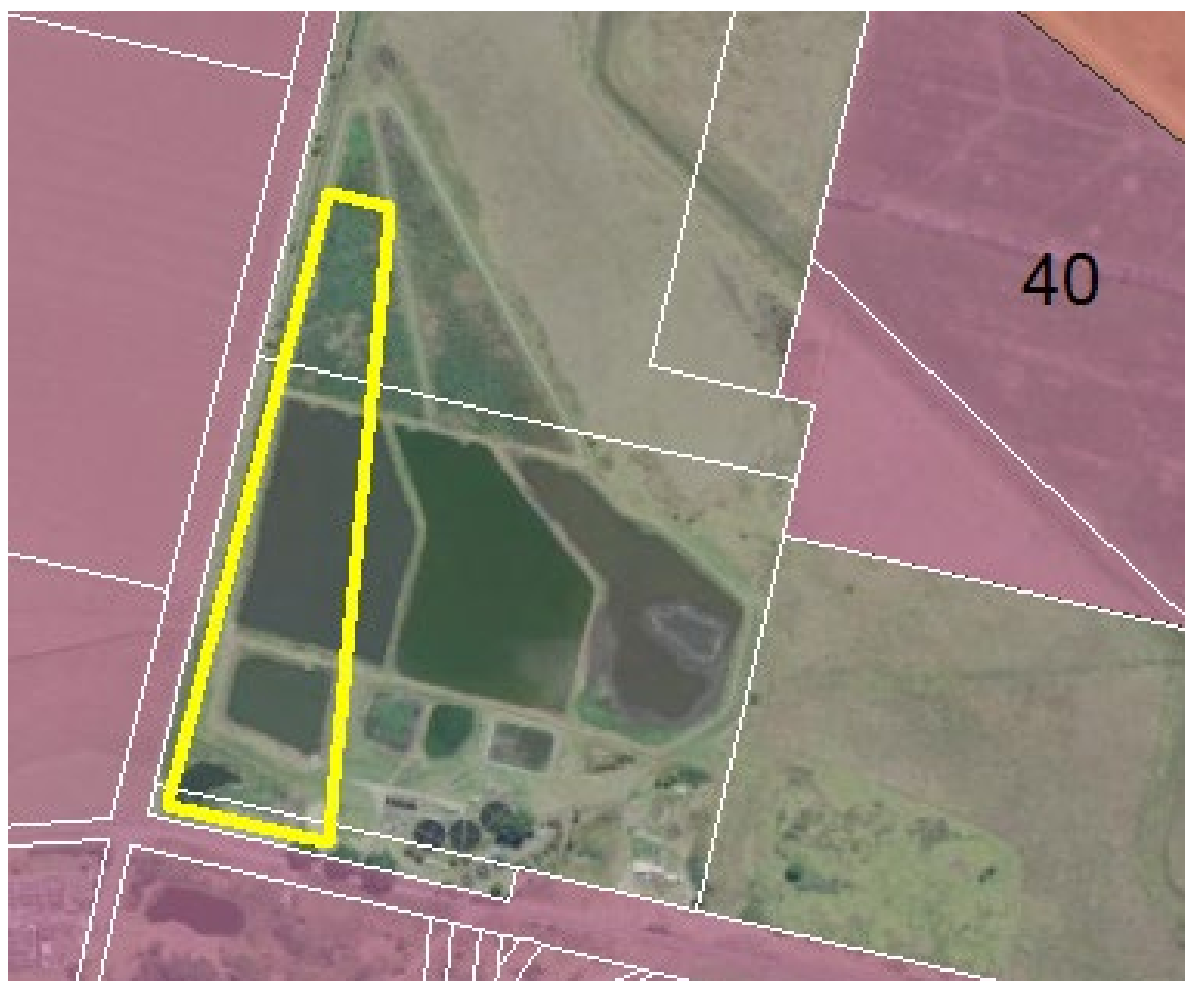## Example 14: Development footprint occurs on multiple lots, none of which are covered by **the LEP lot size map**

Figure 15   **Footprint extends over multiple lots, none of which are covered by the LEP lot size map**

The footprint extends over 3 lots (Figure 15). As none of these lots are covered by the LEP lot size map, the MLS method will be actual lot size method. The MLS will be the smallest of the MLSs associated with each of the lots (refer to Table 6).

Table 6   **Lot size methods**

Lot part	MLS method	MLS	Potential threshold	Final (smallest) threshold
Top	Actual lot size	18 ha	1.0 ha	
Middle	Actual lot size	20.42 ha	1.0 ha	
Bottom	Actual lot size	1.03 ha	0.5 ha	0.5 ha

Appendix B: Example of a Biodiversity Values Map and Threshold Tool report

![NSW Government logo] Department of Planning and Environment

Biodiversity Values Map and Threshold Report

This report is generated using the Biodiversity Values Map and Threshold (BMAT) tool. The BMAT tool is used by proponents to supply evidence to a consent authority to determine whether or not a Biodiversity Development Assessment Report (BDAR) is required under the Biodiversity Conservation Regulation 2017 (Cl. 7.2 & 7.3).

The report provides results for the proposed development footprint area identified by the user and displayed within the blue boundary on the map.

There are two pathways for determining whether or not a BDAR is required for the proposed development:

1. Is there Biodiversity Values Mapping?

2. Is the 'clearing of native vegetation area threshold' exceeded?

Biodiversity Values Map and Threshold Report		
Date of Report Generation		05/05/2023 10:50 AM
Biodiversity Values (BV) Map Threshold - Results Summary		
1	**Does the development Footprint intersect with BV mapping?**	yes
2	**Was ALL of the BV Mapping within the development footprinted added in the last 90 days?** (dark purple mapping only, no light purple mapping present)	no
3	**Date of expiry of dark purple 90 day mapping***	N/A
4	**Is the Biodiversity Values Map threshold exceeded?**	yes
Area Clearing Threshold - Results Summary		
5	**Size of the development or clearing footprint**	6,507.6 sqm
6	**Native Vegetation Area Clearing Estimate (NVACE)**	6,507.6 sqm
7	**Method for determining Minimum Lot Size**	LEP
8	**Minimum Lot Size** (10,000sqm = 1ha)	400,000 sqm
9	**Area Clearing Threshold** (10,000sqm = 1ha)	10,000 sqm
10	**Is the Area Clearing Threshold exceeded?**	no
Is the proposed development assessed above the Biodiversity Offsets Schema (BOS) threshold? Exceeding the BOS threshold will require completion of a Biodiversity Development Assessment Report (BDAR). More details provided on page 2.		**yes**

Page 1 of 3

![NSW Government logo] Department of Planning and Environment

What do I do with this report?

· If the result above indicates a BDAR is required, a Biodiversity Development Assessment Report **may be required** with your development application. Go to https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor to access a list of accredited assessors. An accredited assessor can apply the Biodiversity Assessment Method and prepare a **BDAR**.

· If the result above indicates a BDAR is not required, you have not exceeded the BOS threshold. This report can be provided to Council to support your development application. You may still require a permit from your local council. Review the development control plan and consult with council. You may still be required to assess whether the development is '"likely to significantly affect threatened species" as determined under the test in Section 7.3 of the Biodiversity Conservation Act 2016. You may also be required to review the area where no vegetation mapping is available.

· If all Biodiversity Values mapping within your development footprint are less than 90 days old, i.e. mapping is displayed as dark purple on the map, a BDAR may not be required if your Development Application is submitted within that 90 day period. *Any BV mapping less than 90 days old on this report will expire on the date provided in Line item 3 above.

For more detailed advice about actions required, refer to the **Interpreting the evaluation report** section of the Biodiversity Values Map Threshold Tool User Guide.

Review Options:

· If you believe the Biodiversity Values mapping is incorrect please refer to our BV Map Review webpage for further information.

· If you disagree with the NVACE result for Line Item 6 above (i.e. area of Native Vegetation within the Development footprint proposed to be cleared) you can undertake a self-assessment. For more information about this refer to the **Guide for reviewing BMAT Tool area clearing threshold results**.

Acknowledgement

I, as the applicant for this development, submit that I have correctly depicted the area that will be impacted or likely to be impacted as a result of the proposed development.
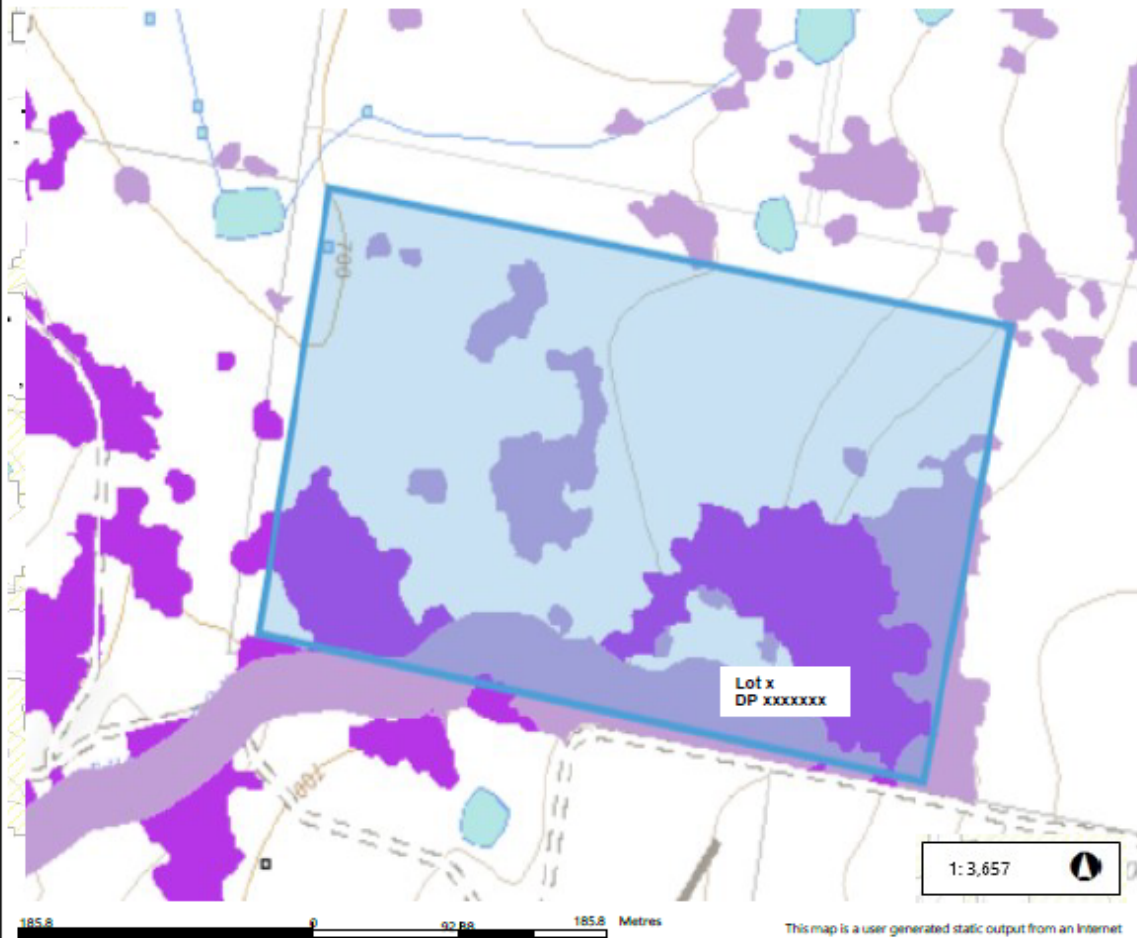
Signature: _____   Date:_____

(Typing your name in the signature field will be considered as your signature for the purposes of this form)

05/05/2023 10:50 AM

Biodiversity Values Map

Lot x
DP xxxxxxx

1 : 3,657

185.8   0   92.88   185.8   Metres

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet
mapping site and is for reference only. Data layers that appear on
this map may or may not be accurate, current, or otherwise reliable.

Legend

Biodiversity Values that have been mapped for more than 90 days

Biodiversity Values added within last 90 days

Native Vegetation Area Clearing Estimate (NVACE)

Development area selected by proponent

05/05/2023 08:29 AM

Imagery © Airbus DS/Spot Image 2016

© NSW Department of Customer Service, Basemaps
2019

© NSW Department of Planning and Environment

The results provided in this tool are generated using the best available mapping and knowledge of species habitat requirements.

This map is valid as at the date the report was generated. Checking the **Biodiversity Values Map viewer** for mapping updates is recommended.

Page 3 of 3

More information

- [Biodiversity Values Map and Threshold (BMAT) Tool](#)
- '[Biodiversity Values Map and Threshold Tool user guide](#)' (DPE 2022)
- [Biodiversity Offset Scheme](#) – webpage
- '[NSW Native vegetation area clearing estimate mapping method](#)'