



# Draft Narrabri Place Strategy – Biodiversity Response to Submissions

Addendum Report

PREPARED FOR



**NSW Department  
of Planning,  
Housing and  
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# Draft Narrabri Place Strategy – Biodiversity Response to Submissions

## Addendum Report

0617761



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## ACKNOWLEDGEMENT OF COUNTRY

We acknowledge country and pay respects to the Gomeroi/Gamilaroi/Gamilaraay/Kamilaroi people as the Traditional Owners and Custodians of the land and waters on which the Narrabri Place Strategy is located.

We recognise their continued connection to Country and that this connection can be seen through stories of place and cultural practices such as art, songs, dances, storytelling and caring for the natural and cultural landscape of the area.

We also recognise the continuing living culture of Aboriginal people, and the significance of Narrabri in that living culture. We recognise the contemporary stories of displacement and the cultural significance of Narrabri in the continued journey of self-determination in Australia.

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## ACRONYMS AND ABBREVIATIONS

Acronym	Description
ALA	Atlas of Living Australia
BAR	Biodiversity Assessment Report
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCS	Biodiversity, Conservation and Science Branch of the NSW Department of Climate Change, Energy, the Environment and Water
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
DPHI	NSW Department of Planning, Housing and Infrastructure
EECs	Endangered Ecological Community. EEC is a category of Threatened Ecological Community.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERM	Environmental Resources Management Australia Pty Ltd
LGA	Local Government Area
MNES	Matter of National Environmental Significance
MSES	Matter of State Environmental Significance
NSW TSSC	NSW Threatened Species Scientific Committee
PCT	Plant Community Type
PMST	Protected Matters Search Tool
SAP	Special Activation Precinct
SCA	State Conservation Area
SPRAT	Species Profile and Threats Database
SVTM	NSW State Vegetation Type Map
TEC	Threatened Ecological Community. In Australia three categories exist for listing threatened ecological communities: critically endangered, endangered, and vulnerable.

# 1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by the Department of Planning, Housing and Infrastructure (DPHI) to prepare an addendum report in response to submissions received from the Biodiversity, Conservation and Science Branch (BCS) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) and public submissions on the draft Narrabri Place Strategy.

The specific item addressed in this addendum report is a review of the biodiversity constraints identification and mapping presented in the Narrabri Special Activation Precinct Biodiversity Assessment Report (BAR) prepared by ERM in 2023.

## 1.1 BACKGROUND AND CONTEXT

The New South Wales (NSW) Government, through its introduction of the Special Activation Precincts (SAPs), has identified six distinctive areas throughout regional NSW to bring together planning and investment to stimulate economic growth across a range of industries including freight and logistics, manufacturing, waste management and recycling, energy generation and agricultural and food processing activities.

In November 2020, Narrabri was declared the sixth and final SAP investigation area and a number of technical assessments were prepared to support the project. The Narrabri Special Activation Precinct was subject to the 2023 NSW Government's Strategic Infrastructure Review and the NSW Government did not proceed with this project.

Narrabri lies at the junction of the Newell and Kamilaroi highways and has direct rail connection to the Port of Newcastle via the Walgett branch of the Main North line. Once completed, there is an allowance for Narrabri to have a direct connection to the new Inland Rail route which will connect Melbourne to Brisbane via new and upgraded track. The township is located within the Narrabri Shire local government area (LGA), 530 km northwest of Sydney, as shown in Figure 1-1.

Following the decision not to proceed with the SAP, DPHI in collaboration with the Narrabri Shire Council, have prepared a draft Narrabri Place Strategy (draft Place Strategy). The draft Place Strategy builds on the work undertaken for the SAP and will provide a framework to accommodate growth and identify new economic and social opportunities over the next 20 years to support the community of Narrabri. The draft Place Strategy is a plan for:

- 2,100 new homes supported by infrastructure and new public open spaces on flood-free land;
- New economic and social opportunities facilitated by investment and development;
- Improving amenity in Narrabri West through new and existing sport, recreation and social infrastructure; and
- Planning for the delivery of infrastructure that is required to support development, including improved transport connections, road upgrades and cycling and pedestrian paths.

The draft Place Strategy and proposed state rezoning was on public exhibition from 23 August to 20 September 2024. A summary of the key issues raised during exhibition, relating to biodiversity constraints is presented below:



- Protection of land mapped as very high and high value vegetation within the Residential and Employment Lands precincts:
  - **Residential Precinct:** Include all patches of very high biodiversity value in the RE1 – Public Recreation zone for the residential precinct and consider whether to include the resulting area wholly or partially within a conservation zone such as C3 – Environmental Management.
  - **Employment Precinct:** If vegetation on the site is shown to be of high biodiversity value, the employment lands precinct should be designed to retain and protect this vegetation through appropriate zoning.
- The land proposed for rezoning contains a significant portion of endangered Brigalow threatened ecological community (TEC) and habitat for Little Pied Bat (*Chalinolobus picatus*) and the Yellow-Bellied Sheath-Tailed Bat (*Saccolaimus flaviventris*), which are protected under the NSW *Biodiversity Conservation Act 2016* (NSW Government, 2016) and the *Environment Protection and Biodiversity Conservation Act 1999* (Australian Government, 1999).

Studies to support the biodiversity assessment consisted primarily of a detailed desktop review to gain an understanding of the known or likely native vegetation communities, threatened species habitats and TEC within the investigation areas. A single field survey was completed across a limited portion of the Narrabri SAP area, with some observations made from the boundaries of the residential growth area.

ERM has reviewed the biodiversity constraint mapping in the Narrabri SAP BAR (ERM, 2023), focusing on the criteria used to classify areas as low, medium, high and very high constraint. Amendments are proposed to more accurately define constraints, reflecting the limited field data available for the draft Place Strategy, while also acknowledging the limitations of relying solely on desktop-sourced information for certain precincts.

## 1.2 PURPOSE OF THIS REPORT

The objective of this report is to review the Plant Community Type (PCT), TEC and habitat mapping to identify any opportunities to revise the constraints criteria for the Employment Lands Precinct (formerly referred to as the Light Industrial Area) and the Residential Precinct (formerly the Residential Growth Precinct) and mapping outputs used to inform the draft Place Strategy and state-led rezoning using the following steps:

1. Review high resolution aerial photography and existing field data using GIS and remote sensing techniques to improve the accuracy of the potential PCT, TEC and species habitat mapping assumptions in these areas;
2. Review constraints criteria to identify potential opportunities to revise the biodiversity conservation values assigned to specific areas, considering elements such as the likely PCT/species habitat from Step 1 above, landscape elements such as connectivity and existing degrading processes such as historical clearing and agricultural land uses; and
3. Following the review proposed in Steps 1 and 2 above, propose alternative biodiversity constraints mapping.
4. Prepare an addendum report describing:
  - The methods applied as part of the review of biodiversity constraints;



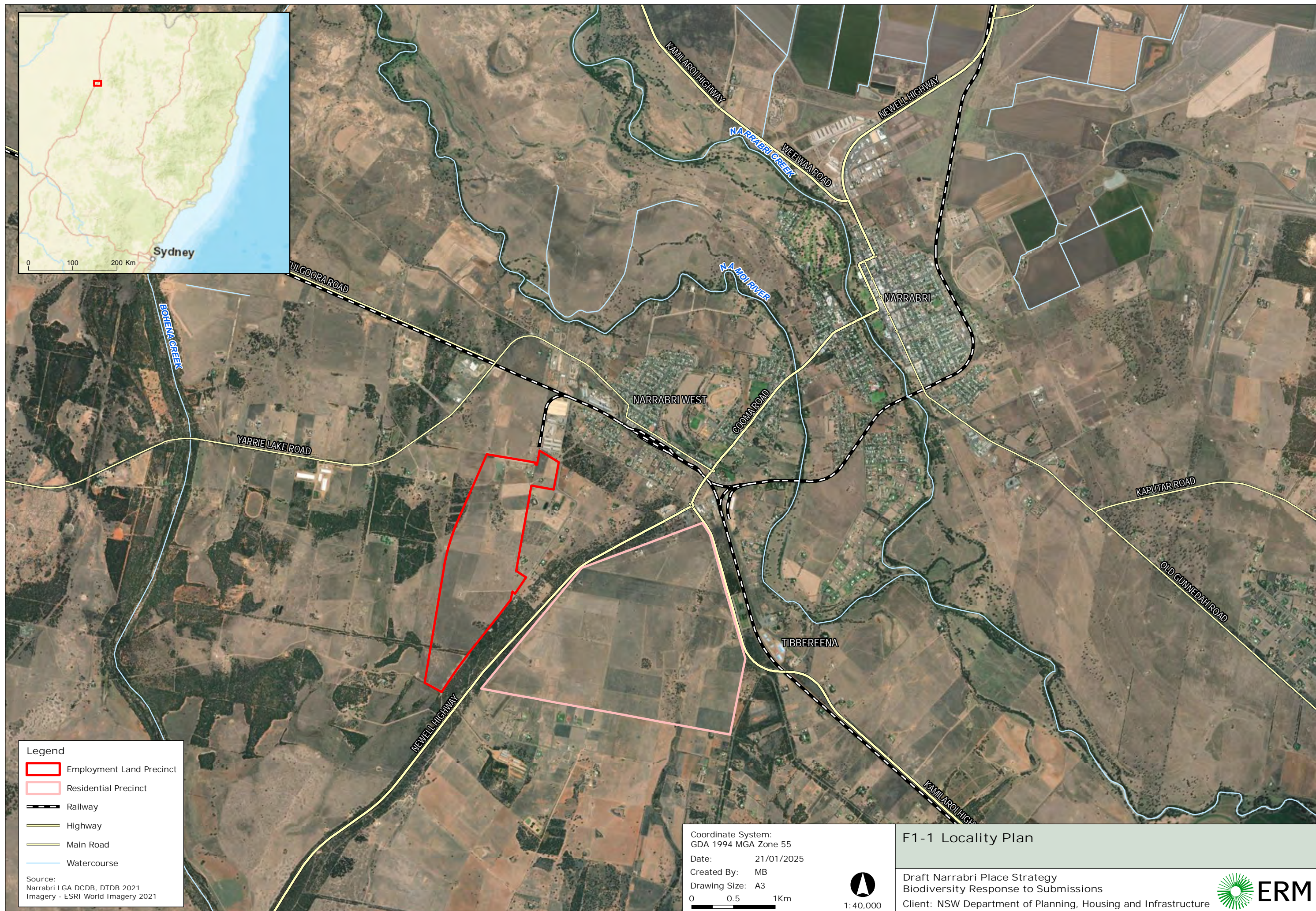
- Updated PCT, TEC and species habitat mapping within the Employment Lands Precinct and the Residential Precinct; and
- Revised constraints applied to assign biodiversity value in the Employment Lands Precinct and the Residential Precinct.

Biodiversity values were originally mapped and described using the criteria established in Table 1-1 of the Narrabri SAP BAR (extracted below). It is noted that these criteria relied on features, observed during field surveys, such as the condition of the native vegetation community and species habitat, connectivity and presence of potential TECs. As some precincts, notably the former Light Industrial Area (now Employment Lands Precinct) and the Residential Growth Precinct were subject to no or limited field survey effort, there is a potential that these constraints have 'over estimated' the biodiversity values in these areas, providing for overly conservative constraint mapping.

**TABLE 1-1 PREVIOUS KEY BIODIVERSITY CONSERVATION VALUES, ERM 2023**

<b>Biodiversity Conservation Value</b>	<b>Features</b>
Very High	<ul style="list-style-type: none"> <li>• Areas mapped on the Biodiversity Values Map</li> <li>• Existing Conservation Reserves</li> <li>• Areas of desktop mapped and field-verified Threatened Ecological Communities in high or moderate condition. High or moderate condition is defined as having an intact canopy and does not include derived native grassland communities.</li> </ul>
High	<ul style="list-style-type: none"> <li>• Woodland PCTs and native riparian vegetation that are not TECs.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• Remaining areas of native vegetation including derived native grassland.</li> <li>• Habitat linkages over cleared land.</li> <li>• Paddock trees recorded as Class 2 or Class 3 (following Appendix B of BAM 2020) that require biodiversity offsets of an ecosystem credit level (not mapped at this scale).</li> <li>• Vegetated habitat corridors and linkages.</li> </ul>
Low	<ul style="list-style-type: none"> <li>• Disturbed cleared lands and exotic plantations.</li> <li>• Land that would meet the definition of Category 1 – exempt under the <i>Local Land Services Act 2013</i> (NSW Government, 2013).</li> </ul>





**Legend**

- Employment Land Precinct
- Residential Precinct
- Railway
- Highway
- Main Road
- Watercourse

Source:  
Narrabri LGA DCDB, DTDB 2021  
Imagery - ESRI World Imagery 2021

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 21/01/2025

Created By: MB


Drawing Size: A3

0 0.5 1km

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**F1-1 Locality Plan**

Draft Narrabri Place Strategy  
Biodiversity Response to Submissions  
Client: NSW Department of Planning, Housing and Infrastructure





## 2. METHODS

To establish a more desktop suitable set of criteria to assess biodiversity conservation values, features which required data only attainable from field surveys were removed. Features which provided a more accurate assessment of biodiversity through desktop analysis were identified through metrics associated to higher quality habitats, which were still available to assess through only desktop. Connectivity and isolation are attributes which fit this requirement. Connectivity is essential for maintaining the movement of organisms, energy and nutrients across landscapes, which are vital for ecosystem resilience and species survival (Soulé et al. 2004).

The field verified values criteria was not modified, as the original criteria has assessed the biodiversity conservation values accurately and the data obtained in the field acquired by two recognised ecologists, Dr John Hunter and Claire Hewitt (ERM). There is also no new data to evaluate, this is also the case in relation to any amendments to the land category assessment mapping.

### 2.1 AERIAL IMAGERY

A range of desktop resources were utilised to assist in the identification of ecological values with the potential to occur within the Residential and Employment precincts. The primary resources included:

- Atlas of Living Australia;
- NSW Sharing and Enabling Environmental Data portal (SEED);
- Google Earth historical view; and
- Google Street View.

Imagery used in the initial desktop biodiversity assessment was provided by the client and dated 23/09/21. Updated imagery was sourced from Google, dated 2024, to ensure the most accurate and current data.

### 3. REVISED BIODIVERSITY VALUES

#### 3.1 REVISED CONSTRAINTS

The biodiversity conservation values have been modified to reflect the issue of reliance on desktop only data, which applied a level of conservatism in the identification of potential constraints to be applied for the state-led rezoning. The following features were removed from the criteria due to their reliance on field specific data:

- 'Areas of desktop mapped and field-verified Threatened Ecological Communities in high or moderate condition. High or moderate condition is defined as having an intact canopy and does not include derived native grassland communities'; and
- 'Land that would meet the definition of Category 1 – exempt under the *Local Land Services Act 2013* (NSW Government, 2013)';

The following features were introduced or modified to utilise desktop specific data:

- State mapped PCTs which correlate to a TEC,
  - e.g. PCT 35 Brigalow – Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion is associated with BC Act and EPBC Act Brigal TEC.
- 'Woodland PCTs and native riparian vegetation that are not TECs' was modified to 'Woodland PCTs and native riparian vegetation that have potential to be TECs and have connectivity'.
  - This allows for a higher degree of scrutiny through desktop analysis, by introducing a benefit to areas of connected vegetation.
- 'Isolated state mapped patches of woodland PCTs and native riparian vegetation'
  - This allows for a higher degree of scrutiny through desktop analysis, to isolated areas of vegetation.
- 'Paddock trees'
  - Giving value to potential paddock trees.
- 'Groups of vegetation with potential to be a PCT'
  - Grouped vegetation identified through aerial imagery that has no reliable way of allocating a most likely PCT.
- Isolated state, desktop mapped patches of woodland PCTs/TECs that are greater than 5ha in size and native riparian vegetation were assigned a medium value and those less than 5ha a low value.

Using these revised constraints, The PCT mapping has been refined. This has resulted in updates to the desktop biodiversity conservation values and species habitat mapping. Updates to the conservation values has resulted in the removal of areas classified as very high value, an increase to areas of high value, a reduction to the medium value and an increase to the low value, as shown in Table 3-1 (below). These biodiversity conservation values are consistent with the recommendations made in the BCS submission and include additional considerations to reflect the reliance on desktop data, with field data used where it is available.

It should be noted that the boundary for the Employment Land Precinct has also increased.

TABLE 3-1 DESKTOP BIODIVERSITY CONSERVATION VALUES

Biodiversity Conservation Value	Features	Previous desktop area (ha)	Revised desktop area (ha)
Very High	<ul style="list-style-type: none"> <li>Areas mapped on the Biodiversity Values Map</li> <li>Existing Conservation Reserves</li> <li>State mapped PCTs which correlate to a TEC</li> </ul>	0.2	0
High	<ul style="list-style-type: none"> <li>Woodland PCTs and native riparian vegetation that have potential to be TECs and have connectivity</li> </ul>	0	5.31
Medium	<ul style="list-style-type: none"> <li>Isolated state mapped patches of woodland PCTs that are greater than 5ha in size and native riparian vegetation</li> <li>Habitat linkages over cleared land</li> <li>Paddock trees</li> <li>Groups of vegetation with potential to be a PCT</li> <li>Vegetated habitat corridors and linkages.</li> </ul>	18.69	7.81
Low	<ul style="list-style-type: none"> <li>Isolated patches of field verified or SVTM native vegetation that are less than 5 ha in size.</li> <li>Disturbed cleared lands and exotic plantations.</li> </ul>	449.53	472.89

### 3.2 PLANT COMMUNITY TYPES AND THREATENED ECOLOGICAL COMMUNITIES

The two plant communities presumed to be present in the Residential and Employment Land Precincts are sourced from NSW State Vegetation Type Map (C2.0.M2.1, November 2024), and refined through Google Street View and review of the Australian Living Atlas (ALA).

Mapping and delineation of the PCT boundaries has been refined using recent aerial imagery which captures changes to the ground vegetation. Updated field verified and desktop PCT mapping is shown in Figure 3-1 and described in Table 3-2.

While none of the PCTs are directly associated with any EPBC Act or BC Act TECs, it should be noted that PCT 397 has the potential to be consistent with the EPBC Act listed TEC Poplar Box Grassy Woodland on Alluvial Plains (DEE, 2019). Desktop analysis alone is not adequate to determine Poplar Box TEC due to the key diagnostic characteristics relying on understory species identification. While the desktop analysis has determined the canopy tree species is most likely *Eucalyptus populnea*, there is no reliable desktop-based method to identify the understory and ground species. Updated field verified and desktop TEC mapping is shown in Figure 3-2.

**TABLE 3-2 DESKTOP MAPPED PLANT COMMUNITY TYPES AND THREATENED ECOLOGICAL COMMUNITY IN THE RESIDENTIAL AND EMPLOYMENT LANDS PRECINCTS**

PCT ID	Description	EPBC or BC Listing (TEC)	Original area (ha)	Updated area (ha)
0	Vegetation which, through aerial imagery, indicates a continuous patch of vegetation that has not been mapped by the state.	Unlikely	449.53	470.08
35	Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion	Potential Brigalow TEC BC Act: E EPBC Act: E	0.2	0
397	Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion	Potential EPBC Act listed Poplar Box Grassy Woodland on Alluvial Plains	16.75	20.05
398	Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion	Unlikely	1.66	4.06

One small patch of PCT 35 mapped in the SVTM in the residential precinct, which is potentially associated with the EPBC Act and BC Act listed Brigalow TEC, has been removed due to updated aerial imagery indicating that the vegetation is no longer present. This same criterion was used to modify other vegetation polygons as shown in Figure 3-2.

Biodiversity conservation values were assessed using the above criteria in Table 3-1, with no very high value found through the desktop analysis. Areas of field verified Brigalow TEC in a woodland condition assessed as very high, and areas field verified to be in a derived condition assigned a high constraint.

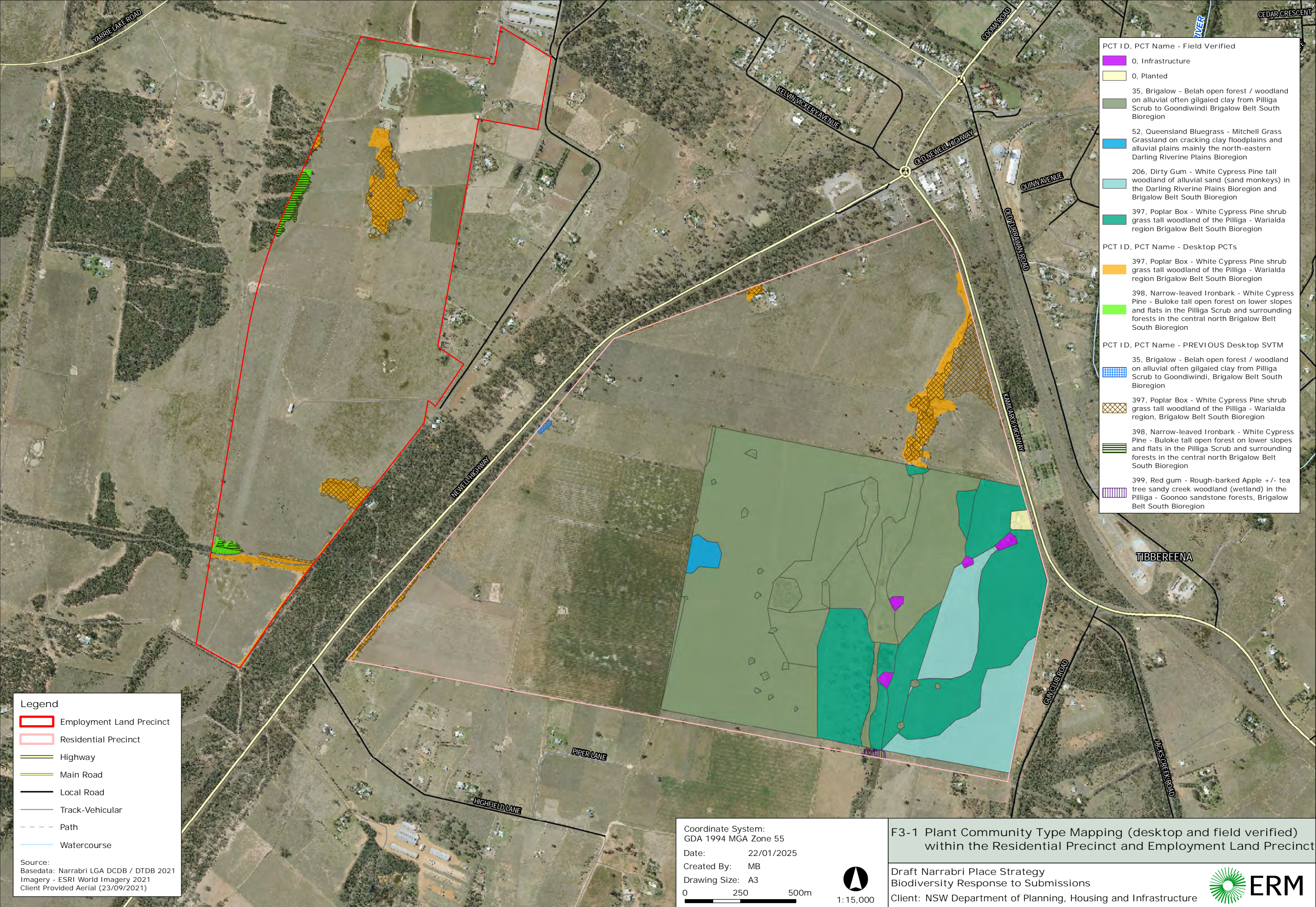
All patches of PCT 397 greater than 5ha in area are classified as high constraint and will need to be ground truthed to confirm if they meet the criteria for the Poplar Box Grassy Woodland on Alluvial Plains<sup>1</sup>. This includes connectivity to larger patches outside the zone boundaries.

One isolated patch of PCT 397 less than 5ha in area has been classified as low constraint. It is strongly advised that this patch is also ground truthed as small patches of vegetation with little or no perennial weeds and a diverse native understorey may also be considered part of the TEC.

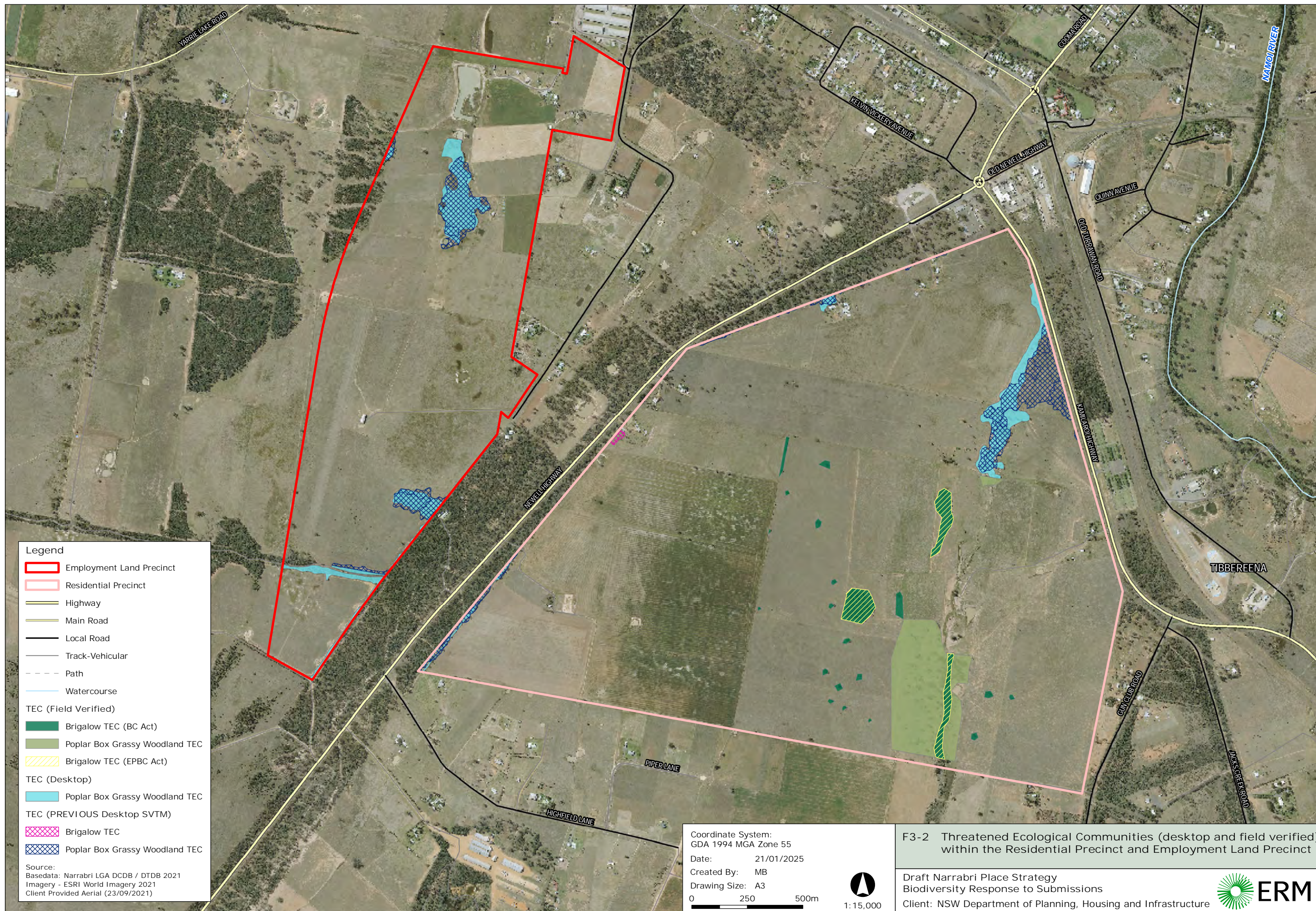
All patches of PCT 398 and paddock trees were assessed as medium constraint. An updated biodiversity conservation values map is shown in Figure 3-3.

<sup>1</sup> Draft condition categories and thresholds for the Poplar Box Grassy Woodland on Alluvial Plains ecological community are provided in the EPBC Act [Draft Conservation Advice \(including listing advice\) for the Poplar Box Grassy Woodland on Alluvial Plains](#)









**Legend**

- Employment Land Precinct
- Residential Precinct
- Highway
- Main Road
- Local Road
- Track-Vehicular
- Path
- Watercourse

**TEC (Field Verified)**

- Brigalow TEC (BC Act)
- Poplar Box Grassy Woodland TEC
- Brigalow TEC (EPBC Act)

**TEC (Desktop)**

- Poplar Box Grassy Woodland TEC

**TEC (PREVIOUS Desktop SVTM)**

- Brigalow TEC
- Poplar Box Grassy Woodland TEC

**Source:**  
 Basedata: Narrabri LGA DCDB / DTDB 2021  
 Imagery - ESRI World Imagery 2021  
 Client Provided Aerial (23/09/2021)

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 21/01/2025

Created By: MB

Drawing Size: A3

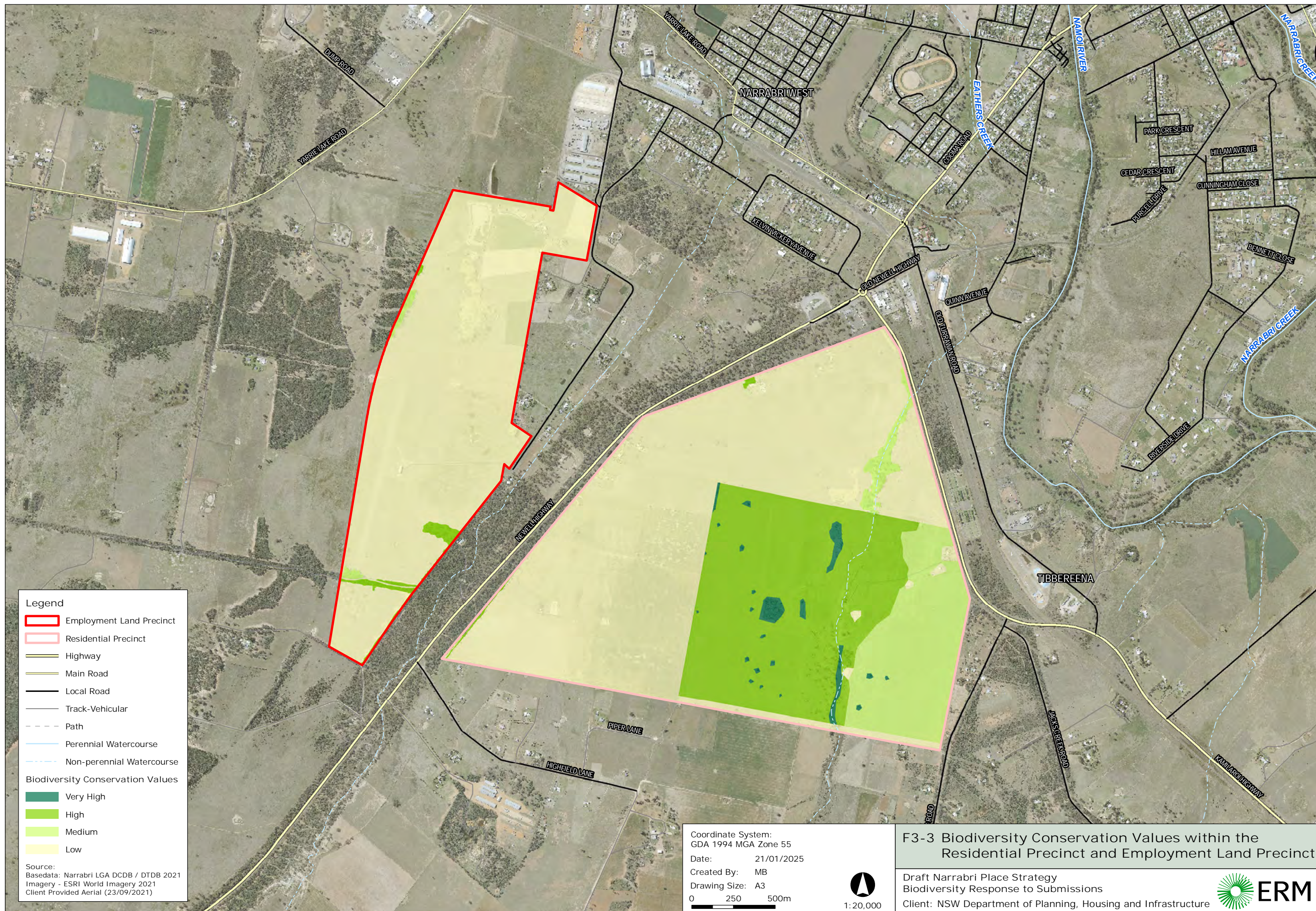
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**F3-2 Threatened Ecological Communities (desktop and field verified) within the Residential Precinct and Employment Land Precinct**

Draft Narrabri Place Strategy  
 Biodiversity Response to Submissions  
 Client: NSW Department of Planning, Housing and Infrastructure







### 3.3 HABITAT FOR PROTECTED SPECIES

With the refinement of the PCT boundaries, using the new criteria, species habitat has also been modified, as shown in Table 3-3 (below). The area of all potential species habitat has increased, in a reflection of the modifications to the PCT mapping. The little pied bat and yellow-bellied sheath-tailed bat potential denning and roosting habitat requires tree hollows, which is difficult to assess through aerial imagery alone. Historical imagery was used to estimate age of the woodlands, which appear to be at least 40 years old, there is however no certainty that the woodlands contain hollows.

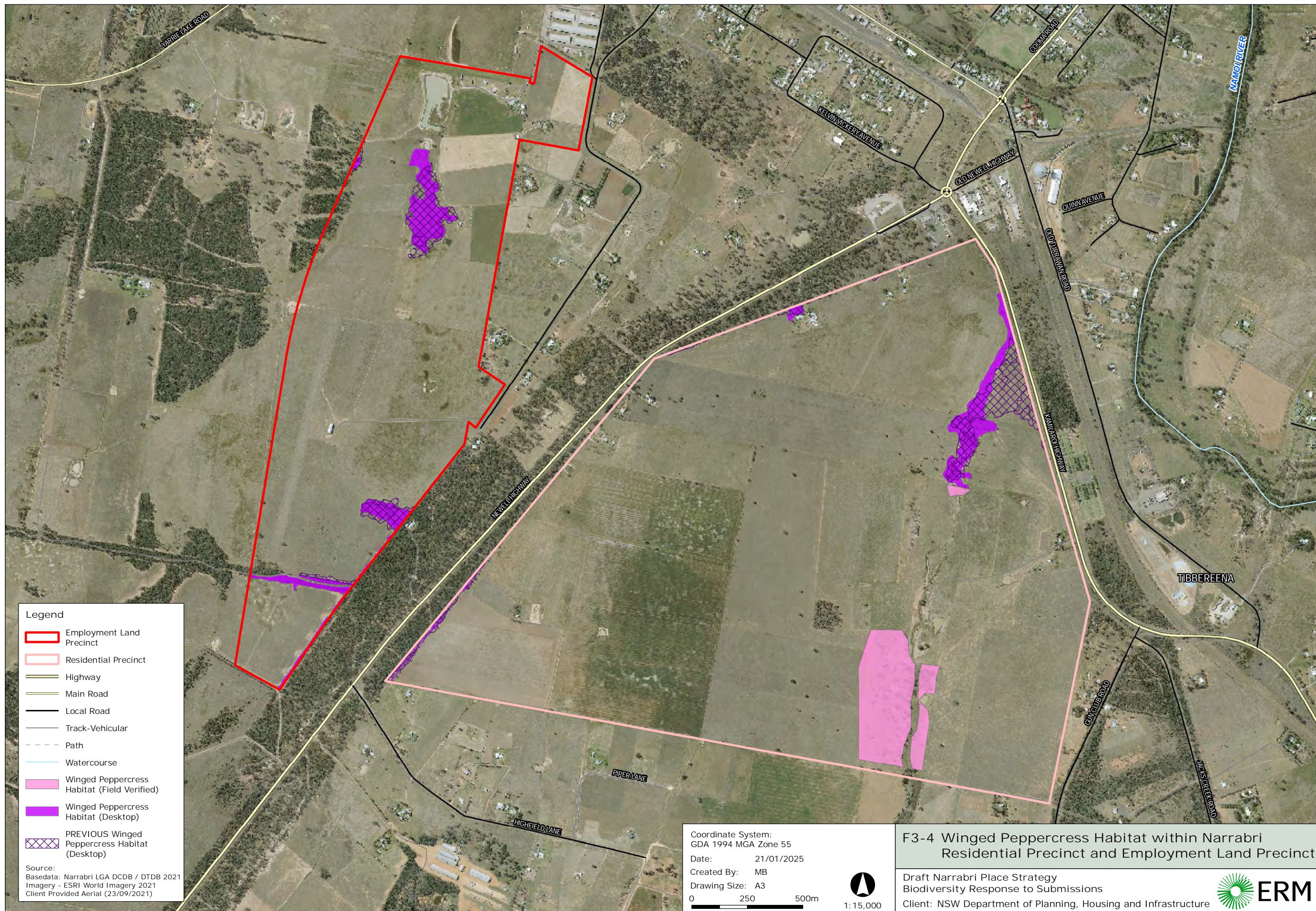
**TABLE 3-3 UPDATED SPECIES HABITAT AREAS IN THE RESIDENTIAL AND EMPLOYMENT LAND PRECINCTS**

Species	Status <sup>1</sup>		Associated PCT <sup>2</sup>	Original area (ha)	Updated area (ha)	Figure
	EPBC Act	BC Act				
Winged peppercress ( <i>Lepidium monoplacoides</i> )	E	E	397 (Poplar Box)	16.75	20.05	Figure 3-4
Spotted harrier ( <i>Circus assimilis</i> )	Not Listed	V	397 (Poplar Box)	16.75	20.05	Figure 3-5
Black falcon ( <i>Falco subniger</i> )	Not Listed	V	397 (Poplar Box)	16.75	20.05	Figure 3-6
Little pied bat ( <i>Chalinolobus picatus</i> )	Not listed	V	Open woodland (397 & 398)	18.41	24.11	Figure 3-7
Yellow-bellied sheath-tailed bat ( <i>Saccolaimus flaviventris</i> )	Not listed	V	Open woodland (397 & 398)	18.41	24.11	Figure 3-7

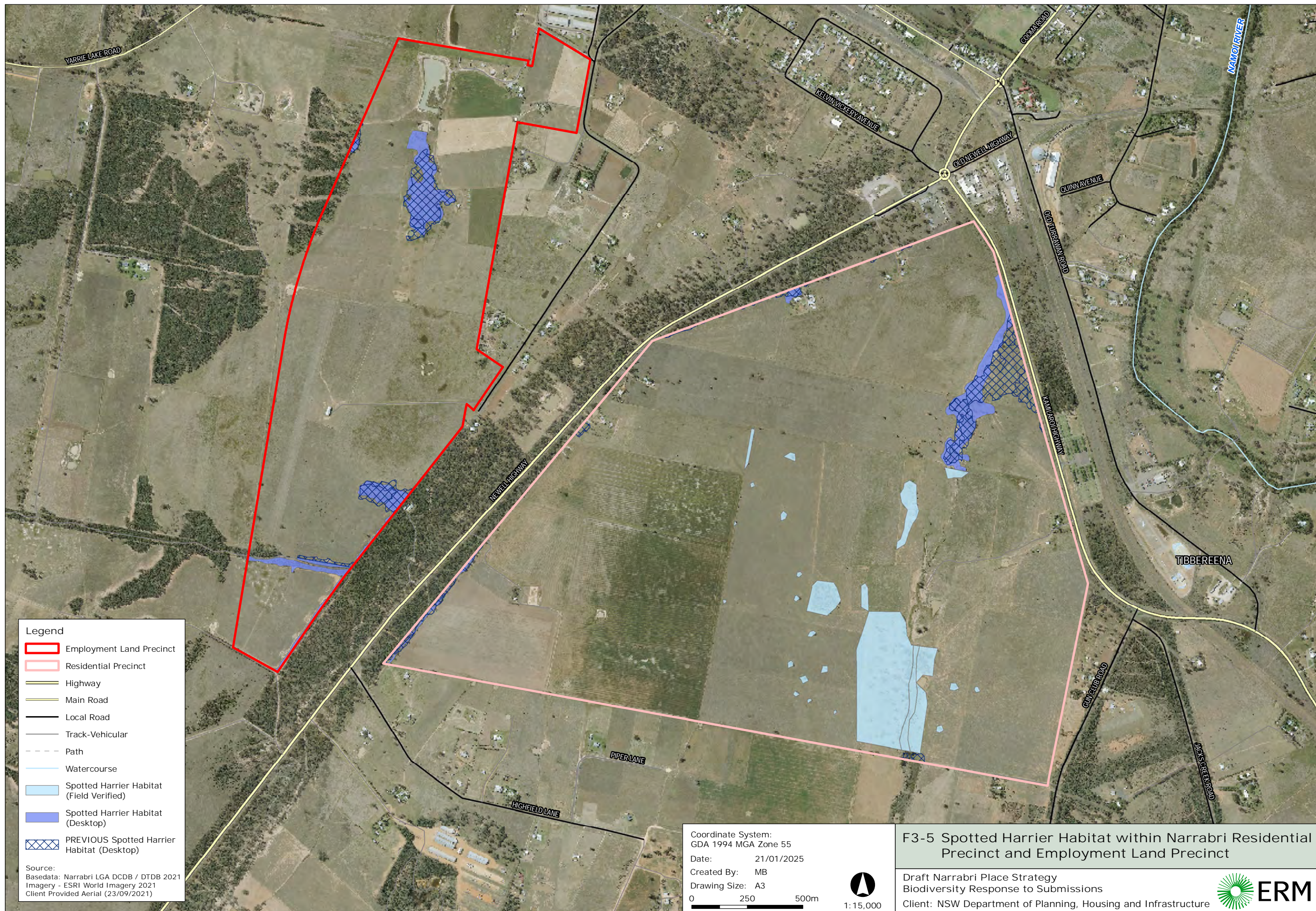
### 3.4 ASSUMPTIONS AND LIMITATIONS

The absence of a species from a database list or observational studies does not confirm its absence from the investigation area. The lack of existing records from databases is more likely to be reflective of targeted sampling effort, as opposed to the absence of threatening processes and species. To overcome these limitations, detailed surveys, and assessment in accordance with the NSW Biodiversity Assessment Methodology (BAM) must be undertaken to confirm PCTs and TECs on site. These assessments will be required as part of future development applications.

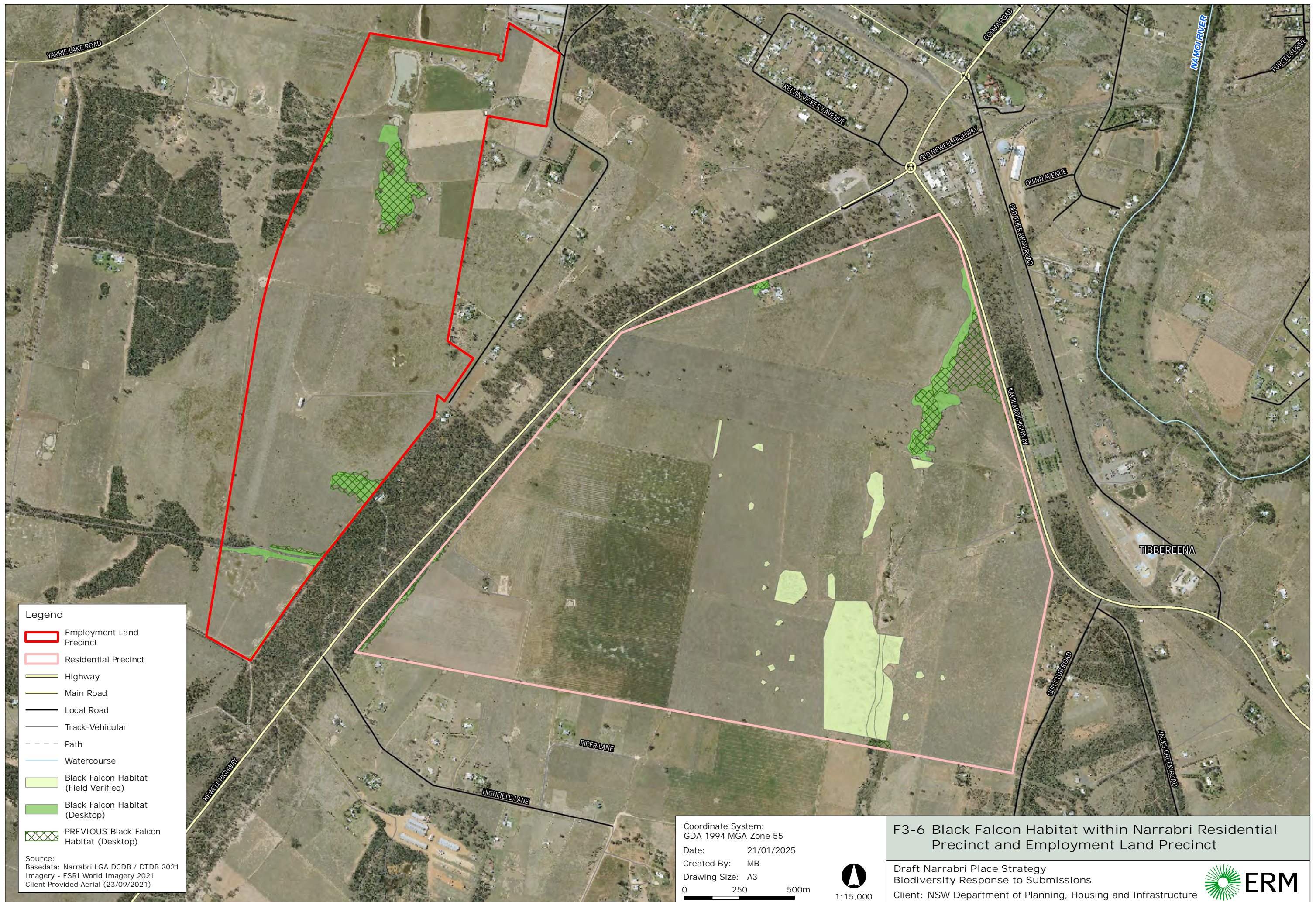




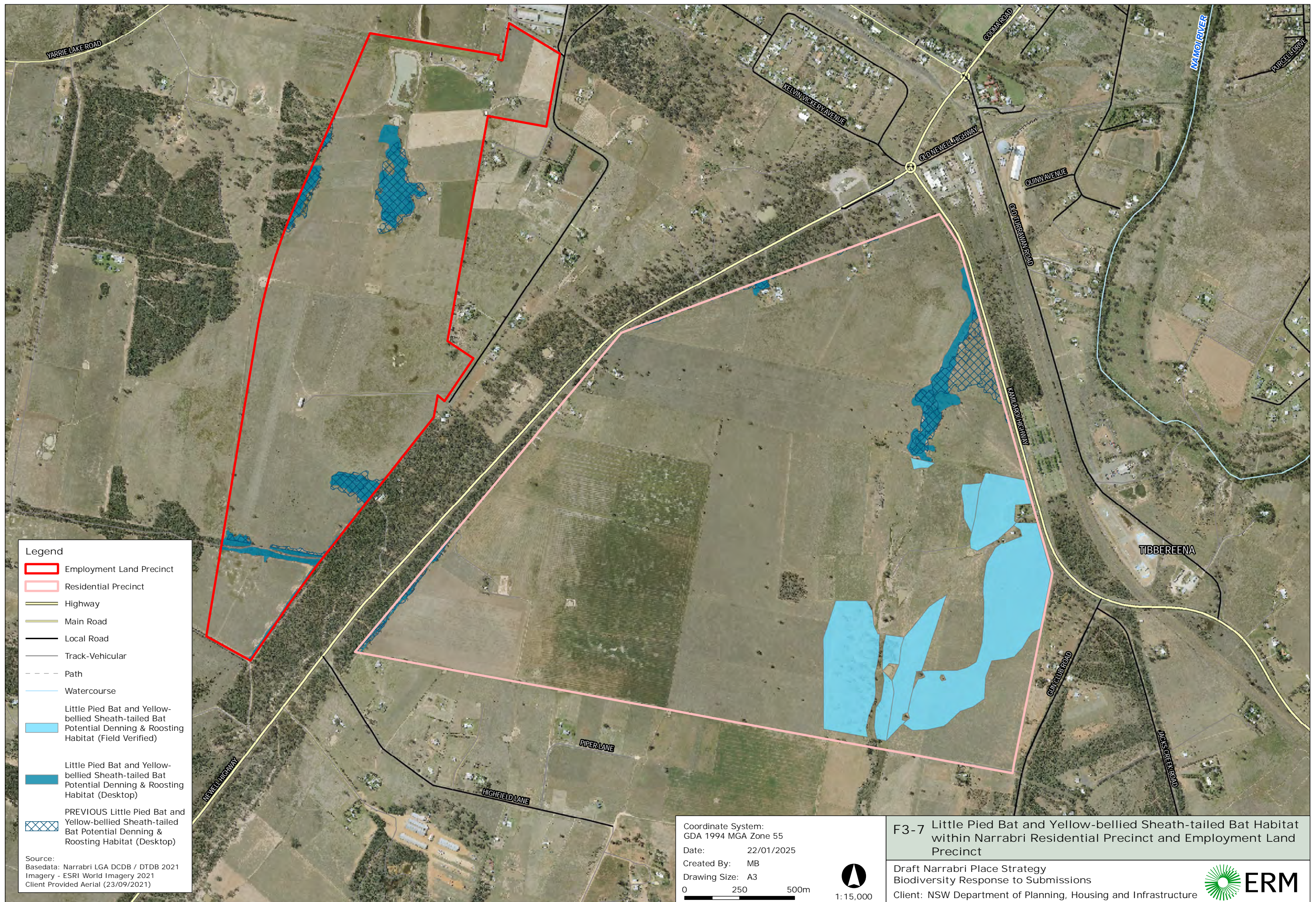












**Legend**

- Employment Land Precinct
- Residential Precinct
- Highway
- Main Road
- Local Road
- Track-Vehicular
- Path
- Watercourse
- Little Pied Bat and Yellow-bellied Sheath-tailed Bat Potential Denning & Roosting Habitat (Field Verified)
- Little Pied Bat and Yellow-bellied Sheath-tailed Bat Potential Denning & Roosting Habitat (Desktop)
- PREVIOUS Little Pied Bat and Yellow-bellied Sheath-tailed Bat Potential Denning & Roosting Habitat (Desktop)

Source:  
Basedata: Narrabri LGA DCDB / DTDB 2021  
Imagery - ESRI World Imagery 2021  
Client Provided Aerial (23/09/2021)

Coordinate System:  
GDA 1994 MGA Zone 55

Date: 22/01/2025

Created By: MB


Drawing Size: A3

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**F3-7 Little Pied Bat and Yellow-bellied Sheath-tailed Bat Habitat within Narrabri Residential Precinct and Employment Land Precinct**

Draft Narrabri Place Strategy  
Biodiversity Response to Submissions  
Client: NSW Department of Planning, Housing and Infrastructure





## 4. CONCLUSION

This addendum report has refined the biodiversity conservation values for the Employment Lands Precinct and Residential Precinct by creating a more desktop-suitable approach to use alongside the original criteria. Through the integration of updated aerial imagery and desktop resources, the mapping of PCTs, TECs, species habitats and biodiversity conservation values mapping has been improved to better reflect current conditions and the reliance on desktop only information.

Key modifications to the criteria included the removal of features reliant on field-only data, the incorporation of metrics emphasising connectivity, and the reassessment of isolated vegetation patches. This allowed for a new set of criteria to assess areas which were not field verified, to be used alongside the original criteria for assessing. While the desktop analysis provided valuable insights, certain areas, such as PCT 397, require further ground-truthing to confirm potential TEC status. Potential habitat for threatened species will also require field verification, through the application of the Biodiversity Assessment Method (BAM) as a part of future development applications. These refinements presented in this addendum report will allow biodiversity conservation values to be assigned with greater accuracy, facilitating informed decision-making for future development applications.

These refinements presented in this addendum report address the key issues raised within the submissions by providing a higher level of accuracy to the biodiversity conservation desktop values within the Employment Lands Precinct and Residential Precinct. This has allowed for a more realistic categorisation for zoning, without being overly precautionary given the reliance on desktop information at this early stage. While this criteria refinement led to updated mapping, which removed the potential for Brigalow TEC to occur, it has highlighted the potential denning and roosting habitat for the little pied bat and yellow-bellied sheath-tailed bat.

The revised criteria and mapping presented in this addendum report present an amendment of the initial mapping by refining the extent of desktop mapped PCTs and species habitats, whilst refining constraint levels to reflect the uncertainty due to a lack of field verification. This presents a more reasonable assessment of the biodiversity constraints at a desktop level, whilst allowing for field verification and application of the BAM during future development applications. Areas of potential TEC and habitat for threatened species will need to be assessed and confirmed through field-verification as a part of future development applications anticipated to be lodged for appropriate land uses. At this stage there will be a requirement to demonstrate if these areas actually meet the definition of a TEC or if they provide habitat for listed threatened species. Through the application of the BAM, measures to avoid and minimise impacts to verified TECs and threatened species habitat will need to be demonstrated, as well as the application of offsets for any unavoidable impacts.

## 5. REFERENCES

Atlas of Living Australia n.d., *Explore Your Area*, <https://biocache.ala.org.au/explore/your-area>.

Australian Government 1999, *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*, <https://www.legislation.gov.au/C2004A00485/latest/versions>.

Department of the Environment and Energy 2019. *Conservation Advice (including listing advice) for the Poplar Box Grassy Woodland on Alluvial Plains*. Canberra. [Conservation Advice \(including listing advice\) for the Poplar Box Grassy Woodland on Alluvial Plains](#)

Environmental Resources Management (ERM). 2023. *Narrabri Special Activation Precinct Biodiversity Assessment Report*.

Google n.d., *Google Street View*, <https://www.google.com/streetview>

Google Earth. (2025). *Google Earth* (Version 7.3.4). Google LLC. Retrieved January 22, 2025, from <https://earth.google.com/>

NSW Government 2013, *Local Land Services Act 2013 No. 51*, NSW Legislation, <https://legislation.nsw.gov.au/view/html/inforce/current/act-2013-051>.

NSW Government 2016, *Biodiversity Conservation Act 2016 (NSW)*, <https://legislation.nsw.gov.au/view/html/inforce/current/act-2016-063>.

NSW Government n.d., *NSW SEED Portal*, <https://geo.seed.nsw.gov.au/vertigisstudio/web/?app=cabd04d595ec43c1aaf4298e80e83ec2>.

Soulé, M.E., Mackey, B.G., Recher, H.F., et al. 2004, 'The role of connectivity in Australian conservation', *Pacific Conservation Biology*, vol. 10, no. 4, pp. 266–279.



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