Planning Proposal

Lot 231 DP880455 - Hampton Road, Waterview Heights



PO Box 119 Lennox Head NSW 2478 T 02 6687 7666

PO Box 1446 Coffs Harbour NSW 2450 T 02 6651 7666

> PO Box 1267 Armidale NSW 2350 T 02 6772 0454

PO Box 229 Lismore NSW 2480 T 02 6621 6677

info@geolink.net.au

Prepared for: Joseph McCabe © GeoLINK, 2021

Declaration

Document name:	Planning Proposal – Lot 231 DP880455 Hampton Road, Waterview Heights	
Document Authors:	Benjamin Price, GeoLINK	
	Jacob Sickinger, GeoLINK	
Occupation of document	Environmental Planner	
authors:	Senior Environmental Planner	
Qualifications of document authors:	Benjamin Price: Bachelor of Environmental Science and Management, Graduate Diploma of Urban and Regional Planning	
	Jacob Sickinger: Bachelor of Urban and Environmental Planning (Hons 1)	
Declaration:	We, Benjamin Price and Jacob Sickinger, declare that this Planning Proposal constitutes a planning proposal for the purposes of Section 3.33 of the <i>Environmental Planning and</i> <i>Assessment Act 1979</i> (EP&A Act) and further declare that the document complies with the relevant provisions of the EP&A Act and the Department of Planning and Environment's <i>A guide to</i> <i>preparing planning proposals</i> (2018).	
Date:	18 October 2021	

UPR	Description	Date Issued	Issued By
3528-1002	First issue	10/03/2020	SJW
3528-1013	Second issue	10/03/2021	JTS
3528-1023	Third issue	18/10/2021	JTS

Table of Contents

<u>1.</u>	Intro	oduction	1
	<u>1.1</u>	Summary of the Planning Proposal	1
	1.2	The Site and Locality	1
	1.3	Proposed Future Use of the Land	2
2.	Pro	posal Objective (Part 1)	6
<u>2.</u> <u>3.</u>		lanation of Provisions (Part 2)	7
4.		tification (Part 3)	10
	<u>4.1</u>	Need for Planning Proposal	10
		4.1.1 Q1. Is the Planning Proposal a result of any strategic planning statement,	
		strategic study or report?	10
		4.1.2 Q2. Is the Planning Proposal the best means of achieving the objectives or	
		intended outcomes, or is there a better way?	10
	4.2	Relationship to Strategic Planning Framework	11
		4.2.1 Q3. Will the planning proposal give effect to the objectives and actions of the	<u> </u>
		applicable regional, or district plan or strategy (including any exhibited draft plans or	2
		strategies)?	11
		4.2.2 Q4. Will the planning proposal give effect to a council's endorsed local strate	
		planning statement, or another endorsed local strategy or strategic plan?	14
		4.2.3 Q5. Is the Planning Proposal consistent with applicable State Environmental	
		Planning Policies?	18
		4.2.4 Q6. Is the Planning Proposal consistent with applicable Ministerial Directions	s (s.
		9.1 (formerly 117) directions)?	19
	<u>4.3</u>	Environmental, Social and Economic Impact	26
		4.3.1 Q7. Is there any likelihood that critical habitat or threatened species,	
		populations or ecological communities, or their habitats, will be adversely affected as	а
		result of the proposal?	26
		4.3.2 Q8. Are there any other likely environmental effects as a result of the Plannir	
		Proposal and how are they proposed to be managed?	27
		4.3.3 Q9. Has the Planning Proposal adequately addressed any social and econor	<u>mic</u>
		effects? 29	
	<u>4.4</u>	State and Commonwealth Interests	29
		4.4.1 Q10. Is there adequate public infrastructure for the Planning Proposal?	29
		4.4.2 Q11. What are the views of State and Commonwealth public authorities	
		consulted in accordance with the gateway determination?	29
5	Mar	pping (Part 4)	30
<u>5.</u> 6.		nmunity Consultation (Part 5)	31
<u>7.</u>		iect Timeline (Part 6)	32
8		clusions and Recommendations	33



Illustrations

Illustration 1.1	Site Locality	3
Illustration 1.2	The Site	4
Illustration 1.3	Existing Zoning	5
Illustration 3.1	Proposed Rezoning	8
Illustration 3.2	Proposed Amended Minimum Lot Size	9

Tables

<u>Table 4.1</u>	Assessment Criteria (A guide to preparing Planning Proposals – DPIE 2018)	13
<u>Table 4.2</u>	Section 9.1 Directions	20
<u>Table 4.3</u>	Generic Due Diligence Process	27
<u>Table 7.1</u>	Indicative timeframe estimates	32

Plates

Plate 1.1 Looking down driveway to road	1
Plate 1.2 Looking east to existing dwellings	1
Plate 1.3 Existing dwelling on proposed lot 1	2
Plate 1.4 Looking south-east to existing dwelling and driveway from road	2
Plate 1.5 Front of existing dwelling on proposed lot 1	2
Plate 1.6 Rear of existing dwelling on proposed lot 1	2

Appendices

Appendix A Preliminary Plan of Subdivision

Appendix B Strategic Plan and Policy Consistency Checklists

Appendix C AHIMS Search Results

Appendix D NSW Heritage Search Results

Appendix E Preliminary Site Contamination Investigation

Appendix F Biodiversity Assessment Report



1. Introduction

1.1 Summary of the Planning Proposal

GeoLINK has been engaged by Joseph McCabe to prepare a Planning Proposal for the partial rezoning of land on Hampton Road, Waterview Heights. The site is described as Lot 231 DP880455 (the site). The proposal is to amend Clarence Valley Local Environmental Plan 2011 (CVLEP 2011) by amending the Land Zoning Map and the Lot Size Map to rezone a modest portion (9800 m²) of the site from RU2 Rural Landscape to R5 Large Lot Residential to allow for the future subdivision of the rezoned land into a 9800 m² large lot residential allotment (that would accommodate an existing dwelling), with the remaining 39.02 ha land parcel to be retained as RU2 Rural Landscape (also accommodating an existing dwelling).

This Planning Proposal constitutes a document referred to in Section 3.33 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It has been prepared in accordance with the Department of Planning, Industry and Environment's (DPIE) "*Planning Proposals: A guide to preparing planning proposals*" (December 2018). A Gateway Determination under Section 3.34 of the EP&A Act was issued on 17th September 2021 confirming the Planning Proposal should proceed subject to conditions.

1.2 The Site and Locality

Lot 231 DP880455 is located in Waterview Heights which is characterised by rural land and large lot residential (also known as rural residential) subdivisions approximately seven kilometres west of Grafton. Waterview Heights is dissected by the Gwydir Highway with the majority of the large lot residential development on the northern side of the highway and more emerging on the southern side of the highway. The subject site is located south of the Gwydir Highway and fronts Hampton Road which connects to Old Glenn Innes Road, which adjoins the Gwydir Highway. A locality plan of the site is shown as **Illustration 1.1** and an aerial photograph of the site is shown as **Illustration 1.2**. Photographs of the site, and dwelling occupying proposed Lot 1, are shown in **Plate 1.1** to **Plate 1.6**.

The site is 40 ha in area. The majority of the site is cleared land comprising grassland and areas of scattered vegetation. Most of the vegetation is concentrated toward the front of the site, with some around the central areas. The site is located adjacent to existing large lot residential areas to the north and rural (grassland and forested) land to the east, south and west. **Illustration 1.3** shows the existing zoning of the site and surrounding land.



Plate 1.1 Looking down driveway to road



Plate 1.2 Looking east to existing dwellings





Plate 1.3 Existing dwelling on proposed lot 1



Plate 1.5 Front of existing dwelling on proposed lot 1



Plate 1.4 Looking south-east to existing dwelling and driveway from road



Plate 1.6 Rear of existing dwelling on proposed lot 1

1.3 Proposed Future Use of the Land

The site is located within the Clarence Valley Local Government Area and therefore CVLEP 2011 applies to the land. The site is currently zoned RU2 Rural Landscape however adjoins land zoned R5 Large Lot Residential. Clause 4.1 - minimum subdivision lot size, requires that the subdivision of the site must result in lots that have a minimum area of 40 ha. It is intended to undertake a subdivision of the land that involves creation of lots less than 40 ha and therefore an amendment to CVLEP 2011 is required.

The site is currently occupied by two freestanding dwellings, each with their own access and services. The proponents intend to subdivide the land into two lots, allowing each dwelling to occupy their own individual lot. Proposed Lot 1 in the north-western corner of the existing lot will have a maximum size of 9800 m² and a frontage (including access) to Hampton Road. It will accommodate one of the existing dwellings. The remaining residual lot (Lot 2) will be 39.02 ha, also with a frontage and separate access to Hampton Drive. This lot will accommodate the other existing dwelling. The proposed lot layout is shown in the preliminary plan of subdivision at **Appendix A**.

The residual Lot 2 will be non-compliant with the minimum subdivision lot size of the CVLEP 2011 and will require a request to vary the development standard to accompany the future development application. It is considered that the applicable variation in this case of 2.5 per cent is minor and well within the scope of clause 4.6(6), which prohibits a variation of greater than 10 per cent. Furthermore, the subdivision will not undermine nor result in any contravention of the objectives of the development standard and will promote the orderly and economic development of land in a way that is absent of impacts on adjoining properties or the environment. Therefore, it can be demonstrated that compliance with the development standard is unreasonable and unnecessary, and sufficient environmental planning grounds exist to justify the minor variation.





eol

Locality Plan - Illustration 1.1

Planning Proposal - Lot 231 DP 880455 - Hampton Road, Waterview Heights 3528-1003

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: BNP Source of base data: OpenStreetMap Date: 25/02/2020

6715000

6714000



488000



6714000

489000 GDA 1994 MGA Zone 56

150 Metres

Geo

Planning Proposal - Lot 231 DP 880455 - Hampton Road, Waterview Heights 3528-1012

The Site - Illustration 1.2

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: ILC Source of base data: DFSI and O'Donohue Date: 27/01/2021 Revision: A



LEGEND



The site R5 Large Lot Residential RU2 Rural Landscape Proposed subdivision

150 Metres

| 489000 GDA 1994 MGA Zone 56 6715000

6714000



Planning Proposal - Lot 231 DP 880455 - Hampton Road, Waterview Heights 3528-1005

Existing Zoning - Illustration 1.3

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: BNP Source of base data: DFSI and Planning NSW Date: 25/02/2020

2. Proposal Objective (Part 1)

Overall, the objective of this Planning Proposal is to amend the CVLEP 2011, including the Land Zoning Map and the Lot Size Map, to enable subdivision.

More specifically, the Planning Proposal is to allow for the future subdivision of the existing lot into one 9800 m² large lot residential allotment (that would accommodate an existing dwelling) and a residual rural landscape lot of 39.02 ha (that would also accommodate an existing dwelling). The subdivision will facilitate independence of the two existing dwellings and allow greater flexibility in the use and ownership of these dwellings, providing for a neutral sustainable infill development outcome, consistent with the existing and emerging pattern of development in the locality.

The Planning Proposal seeks to achieve its objective by:

- rezoning part of the existing lot (proposed Lot 1, 9800 m²) to R5; and
- applying a minimum lot size of 8000 m² to the part of the land that is proposed to be rezoned to R5.

Although the adjoining R5 zoned land has a minimum lot size control of 4000 m², application of a 8000m² minimum lot size is considered to be more appropriate (as per the Gateway determination) for the subject land proposed to be rezoned as this allows for the existing dwellings to be accommodated on independent lots through a minor and orderly extension of the adjoining R5 area, whilst also limiting the maximum future development potential of the land.

The proposed arrangement is compatible and acceptable in the local context of Waterview Heights and would not give rise to adverse outcomes.



3. Explanation of Provisions (Part 2)

The Planning Proposal will amend the CVLEP 2011 by:

- amending the CVLEP 2011 Land Zoning Map in accordance with the proposed zoning amendment map shown in Illustration 3.1 to change the zoning of part of the existing lot (proposed Lot 1, 9,800m²) from RU2 Rural Landscape to R5 Large Lot Residential; and
- amending the CVLEP 2011 Lot Size Map in accordance with the proposed amendment map shown in Illustration 3.2 to change the minimum lot size of this 9,800m² portion from 40 ha to 8000 m².



488000

6715000

489000

6714000



LEGEND

- - The site R5 Large Lot Residential RU2 Rural Landscape Proposed subdivision

GDA 1994 MGA Zone 56



20

150 Metres

Planning Proposal - Lot 231 DP 880455 - Hampton Road, Waterview Heights 3528-1006

Proposed Rezoning - Illustration 3.1

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: BNP Source of base data: DFSI and O'Donohue Hanna Date: 25/02/2020

6714000



6715000

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Department of Customer Service 2020





489000



150 Metres

Proposed Amended Minimum Lot Size - Illustration 3.2



Planning Proposal - Lot 231 DP 880455 - Hampton Road, Waterview Heights 3528-1024

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: BNP Source of base data: DFSI and O'Donohue Hanna Date: 18/10/2021 Revision: A

4. Justification (Part 3)

4.1 Need for Planning Proposal

4.1.1 Q1. Is the Planning Proposal a result of any strategic planning statement, strategic study or report?

There is no local or State strategic study or report that specifically references the site or the Planning Proposal. The Planning Proposal is therefore not the result of any such strategy or report. The site's relationship to relevant local and State strategic plans is discussed further in **Section 4.2**. The land proposed for rezoning is located immediately adjacent to land that is already zoned R5 Large Lot Residential (and has a minimum lot size control of 4000m²) and would provide for a logical co-location and continuation of this infill style development. The Planning Proposal represents orderly development and would not create substantial new demand for additional services or infrastructure given the new lot, as a result of the future proposed subdivision, would accommodate an existing dwelling and any further development potential following rezoning and subdivision is very limited.

The area proposed to be rezoned is also currently being used in a manner that is consistent with the nearby large lot residential development. The proposal's consistency with nearby large lot residential developments will ensure the resultant subdivision is compatible with the local land use context and does not impact the amenity or character of the locality. This minor adjustment would simply provide for greater flexibility in the use of the existing housing stock of Clarence Valley, and would not lead to any unintended or detrimental land use effects.

It is acknowledged that the residual lot zoned RU2 will be non-compliant with the 40-hectare minimum lot size by 0.98 ha. It is considered that a non-compliance of this extent, 2.5 per cent, will have negligible impact on the site's ability to achieve the objectives of this clause. Furthermore, there are many examples of existing rural lots in the broader locality that are marginally below the 40-hectare minimum. Sufficient environmental planning grounds can be demonstrated as the development will achieve the orderly and economic use of land in a manner that is absent of impacts to adjoining land or key environmental features.

The land use arrangement is considered to be orderly and results in an acceptable outcome that would be compatible with the pattern and type of development in the immediate area. As such, it is submitted that any inconsistency with strategic policy is of a minor significance only, can be justified based on site-specific merit, and a clause 4.6 application to vary the development standard for the residual lot's minimum lot size could be supported.

4.1.2 Q2. Is the Planning Proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The proposed outcome is to allow for the rezoning and future subdivision of the land that adjoins an existing developed large lot residential area. It is considered that the Planning Proposal is the most appropriate way to achieve this.



10

4.2 Relationship to Strategic Planning Framework

4.2.1 Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?

North Coast Regional Plan 2036 (NCRP 2036)

The North Coast Regional Plan 2036 (NCRP 2036) released in March 2017 is the applicable regional plan. It is the NSW Government's strategy for guiding land use planning decisions for the North Coast region.

The Regional Plan comprises goals, directions and actions. The goals articulate the intended outcome; the directions identify the broad issues or policy areas that need to be focused on; and the actions represent the steps needed to be taken or initiatives that need to be implemented to achieve the goals. Actions are either implemented as strategies or as initiatives.

The North Coast area has increased in popularity as a place to live and work. As a result, the region has seen a notable increase in population. Projected population growth to 2036 is expected to require around 46,000 more homes to be supplied in the region.

The NSW Government's vision for North Coast is: The best region in Australia to live, work and play thanks to its spectacular environment and vibrant communities.

To achieve this vision, the Government has set four goals in the NCRP 2036 for the region:

- The most stunning environment in NSW
- A thriving, interconnected economy
- Vibrant and engaged communities
- Great housing choice and lifestyle options.

The following planning principles have been identified to guide growth on the North Coast:

- Direct growth to identified urban growth areas
- Manage the sensitive coastal strip
- Provide great places to live and work in a unique environment.

A range of NCRP 2036 directions and actions are applicable to and support the Planning Proposal. An assessment against the relevant directions of the NCRP 2036, is provided below, with additional consideration of the actions (consistency checklist) provided in Table B1 in **Appendix B** of this report.

- Direction 1: Deliver environmentally sustainable growth
 - The proposal is consistent with this direction. It will not result in adverse environmental impact and is appropriate and suitable in the context of adjoining R5 land. The small rezoning would effectively integrate in the existing and emerging R5 character of the locality without frustrating urban growth management.
- Direction 11: Protect and enhance productive agricultural lands
 - The proposed rezoning and future subdivision are acceptable in this context as it would not restrict or inhibit the use or productivity of agricultural land and activities.



- Direction 14: Provide great places to live and work
 - The proposal is consistent with this direction as it supports provision of quality rural residential places to live.
- Direction 20: Maintain the region's distinctive built character
 - The proposed rezoning and intended future subdivision would not alter the region's built character. It is consistent with the character and pattern of adjoining R5 large lot residential zoning and associated development.
- Direction 22: Deliver greater housing supply
 - The proposal would allow support housing supply.
- Direction 23: Increase housing diversity and choice
 - The proposal would allow for increased housing choice on independent lots.
- Direction 24: Deliver well-planned rural residential housing areas
 - The proposal is consistent and compatible with the locality and adjoining R5 zone and associated development. The proposal is orderly and would effectively integrate into this rural residential area, maintaining well-planned outcomes.
- Direction 25: Deliver more opportunities for affordable housing.
 - The proposal would allow for increased rural residential housing choice on independent lots, with the smaller lot having the potential to be a more affordable rural residential option.

Based on the assessment against the NCRP 2036 (above and in **Appendix B**, Table B1), the proposal is:

- Not specifically identified in, and is therefore not directly consistent with, urban growth area mapping.
- On balance, generally consistent with the majority of applicable directions and actions of the NCRP 2036 given its context and association with existing R5 zoned land which is compatible and suitable for minor and limited expansion. The proposal has site-specific merit, as discussed further below and is justified. It would not undermine the NCRP 2036 intent to direct growth to identified urban growth areas, and an insignificant and demonstrably appropriate variation to this is not unreasonable and can be supported.

The DPIE guide to preparing planning proposals (December 2018) also outlines that:

Some regional strategies and plans include Sustainability Criteria that provide a framework to consider planning proposals that are not consistent with the strategy but may nonetheless have merit. This may include a proposal for rezoning a site immediately adjoining – but not included in – a future urban investigation area under the relevant strategy. Where this Criteria apply, the planning proposal should demonstrate that the rezoning can meet the Sustainability Criteria or identify the studies necessary to confirm that it can meet this Criteria.

Assessment Criteria have been established to assist proponents or a PPA justify a planning proposal. These criteria form the basis of the strategic merit and site-specific merit assessment for the rezoning review process. As a minimum, the justification component of a



planning proposal should address the following Assessment Criteria where no Sustainability Criteria applies to the land.

The NCRP 2036 does not include Sustainability Criteria as referenced in the DPIE guideline, hence the Assessment Criteria provided in the guideline is used. An assessment of the proposal against this is provided in the table below.

Assessment Criteria	Response/Comment	
a) Does the proposal have strategic merit? Will it:		
give effect to the relevant regional plan outside of the Greater Sydney Region, the relevant district plan within the Greater Sydney Region, or corridor/precinct plans applying to the site, including any draft regional, district or corridor/precinct plans released for public comment; or	Yes. As indicated previously in Section 4.2.1 , whilst the subject site is not specifically identified in NCRP 2036, the proposal is consistent with key Directions and Actions of the NCRP 2036. The proposed rezoning of a relatively small portion of the existing lot to R5 Large Lot Residential is acceptable in the local context and the context of the NCRP 2036, being of minor significance.	
give effect to a relevant local strategic planning statement or strategy that has been endorsed by the Department or required as part of a regional or district plan or local strategic planning statement; or	Yes. As outlined at Section 4.2.2 , the planning proposal is generally consistent with the objectives of the <i>Clarence Valley Settlement Strategy 1999</i> (CVSS 1999) and would allow for the orderly and economic development of this land. The proposal is suitably aligned with the intent and guidance of the CVSS.	
responding to a change in circumstances, such as the investment in new infrastructure or changing demographic trends that have not been recognised by existing strategic plans.	The proposal is justified on the basis of the above responses; however, it is noted that the CVSS 1999 is now over 20 years old and the new NCRP 2036 is in effect. The NCRP 2036 clearly recognises that the North Coast area has increased in popularity as a place to live and work and that there is a need for housing choice and diversity, as well as the provision of suitable rural residential land and associated lifestyle opportunities. The proposal is consistent with this context and supportable as it is orderly and integrative with adjoining extents of land already zoned R5 and developed for rural/large lot residential purposes.	
b) Does the proposal have site-specific merit, having regard to the following?		
the natural environment (including known significant environmental values, resources or hazards) and	Yes, it has merit. As outlined in Section 4.3 , the planning proposal would not result in any significant impact or risk to the natural environment. The rezoning and future subdivision can and would be undertaken with minimal, if any, impact to the natural environment. Also, there is no significant risk from hazards.	
the existing uses, approved uses, and likely future uses of land in the vicinity of the proposal and	Yes, the proposal has merit. As outlined in this report, the proposal is reasonable and justified given it adjoins existing R5 zoned land (which has 4000m ² minimum lot sizes) and dwellings. The proposal is compatible with the character of the large lot residential area along Hampton Road in Waterview Heights, and would not frustrate or impede rural land activity in the broader area as the site is co-located directly adjacent to existing R5 areas and associated development.	
the services and infrastructure that are or will be available to meet the	The proposal would not notably increase the demand for services or infrastructure. The existing dwellings, which	

Table 4.1 Assessment Criteria (A guide to preparing Planning Proposals – DPIE 2018)



demands arising from the proposal would be separated onto independent lots by way of future and any proposed financial subdivision following rezoning, are already adequately arrangements for infrastructure serviced, minimising any increased demand. Additionally, the future development potential of the land provision. created by way of rezoning and then subdivision (e.g. the potential for future dual occupancies or secondary dwellings on the lots) is very limited and adequate services exist within the immediate locality and nearby regional city of Grafton. The proposal would not significantly impact on the demand for these services given the existing use of the site and presence of existing and emerging large lot residential development in the Waterview Heights locality.

It is acknowledged that there is some inconsistency with the strategic planning framework in that the relevant endorsed strategies do not specifically identify the site for the proposed type of land use/development. However, this does not preclude a Planning Proposal from being considered where there is merit and a framework for its consideration is provided. The proposal has merit and is of a minor nature, being located directly adjacent to existing R5 zoned land. It is of insignificant scope and consequence. Therefore, as per the DPIE guide to preparing planning proposals (which specifically mentions such scenarios) this Planning Proposal has considered the Assessment Criteria provided in the guideline (given the absence of Sustainability Criteria in the NCRP 2036).

It is considered that the rezoning and future subdivision of the site is consistent with the Assessment Criteria given its small scale and connection to land that is already zoned and developed for R5 Large Lot Residential purposes. On this basis, it is reiterated that the Planning Proposal does not seek additional release of land or rezoning that would result in substantial land use change or demand for services/infrastructure. Rather it seeks a minor rezoning of a small portion of land to facilitate separating the two existing dwellings on the subject property onto individual lots and allow for some modest flexibility of use and ownership into the future. This is an orderly and practical outcome that occurs immediately adjacent to existing similar and compatible development/land uses. Therefore, the proposal has merit and is supportable in this context and justified by the applicable assessment criteria to overcome any inconsistency with the formal strategic planning framework.

4.2.2 Q4. Will the planning proposal give effect to a council's endorsed local strategic planning statement, or another endorsed local strategy or strategic plan?

Community strategic plan: The Clarence 2027

The Clarence 2027 is Council's adopted community strategic plan. It is supported by Council's Delivery Program and Annual Operational Plan.

An assessment of the planning proposal against The Clarence 2027 is provided in **Appendix B** at Table B2 (consistency checklist). The proposal is considered to be generally consistent with the 5 themes and associated objectives and actions.

Clarence Valley Local Strategic Planning Statement July 2020

The Local Strategic Planning Statement (LSPS) sets the direction for land use planning in the Clarence Valley for the next 20 years. It includes Priorities to manage growth and development, protect the environment and the character of spaces and places, and Actions that Council will work on with the community to achieve the vision.



The LSPS needs to implement the NCRP 2036 and helps to implement the Community Strategic Plan – *Our Clarence 2027*, along with a wide range of other Council strategies and plans.

The LSPS includes the same vision as the Community Strategic Plan, for the Clarence Valley to be: *a community of opportunities*.

The LSPS outlines that: the Clarence Valley encourages ecologically sustainable development which supports a growing population, the creation of meaningful and sustainable job opportunities and maintains the character of our places and lifestyle that make the Clarence Valley such a great place. The Clarence Valley is part of the best region in Australia to live healthy and well-connected lives.

Through coordinated actions and collective effort from Council and our community, we will create opportunities and support a growing population, beyond current trends.

The LSPS acknowledges that the Clarence has residential land zoned to accommodate an additional 10,000 -15,000 people, however it will work to make more land available for employment growth and other areas available for potential growth over the term of the LSPS.

Based on this acknowledgement, a small and limited rezoning for rural/large lot residential purposes, directly adjoining existing R5 zoned land, is not unreasonable nor contrary to the intent of the LSPS. Whilst the LSPS suggests that there is existing land zoned to support growth, it does not rule out that there may be the need for more or updated growth areas given the Clarence Valley Settlement Strategy 1999 (CVSS 1999) requires review and updating, and that some land is constrained which could limit its developability. This Planning Proposal suitably gives effect to the LSPS by allowing for minor rezoning in a suitable and compatible locality, consistent with the character and sustainable development directions of the Clarence.

The planning priorities outlined in the LSPS have been grouped under the following themes, in order to align with the Community Strategic Plan, the Clarence 2027:

- Society
- Infrastructure
- Economy
- Environment
- Leadership.

The following priorities and associated actions are considered to be applicable to the proposal. Commentary is provided in subsequent dot points in the context of the proposal and how it will give effect to the relevant aspects of the LSPS:

- Priority 1 Take a proactive 'place making' approach to create great places suitable to our climate, culture and aspirations.
 - The LSPS recognises the need to provide for growth and a range of housing choice with great lifestyle opportunities. The LSPS acknowledges the need to prepare a Local Growth Management Strategy and associated studies to update where and how urban development should occur (it is noted that the Clarence Valley Settlement Strategy 1999 is over 20 years old and requires review/updating). Whilst the LSPS acknowledges that there is probably adequate land zoned to accommodate growth this requires review to ensure it is accurate and given some land is subject to various constraints that may limited its development potential despite its zoning. The proposal is minor and would not undermine this intent. It is acceptable given its insignificance and effective integration with adjoining compatible land use zoning and



development. The proposal is consistent with the character and 'place making' approach of large lot residential land in Waterview Heights.

- Priority 3 Plan for a growing population and provide safe, healthy, resilient and sustainable places for communities to grow
 - Whilst the LSPS acknowledges that Council probably has adequate zoned residential and rural residential land to cater for a growing population, it also acknowledges that this needs to be reviewed and confirmed. The proposal is minor, has very limited additional development potential and would allow for acceptable development in the context of the Waterview Heights area. This area is strategically acknowledged to support and cater for R5 large lot residential areas and the subject site immediately adjoins such land. This is consistent for this community context.
- Priority 4 Provide housing choice to meet community needs, including social and affordable housing and the integration of liveability principles
 - The proposal would support the existing dwellings to be separated onto independent lots, allowing for better choice/flexibility in use and ownership.
- Priority 5 Provide for healthy, safe and well connected communities, particularly providing for social infrastructure
 - Waterview Heights is close to Grafton and council's strategic plans support growth here generally. Whilst the site currently falls outside R5 zone land, it immediately adjoins R5 zoned land. Its location is consistent with providing for well-connected rural/large lot residential communities.
- Priority 13 Protect agricultural land and increase opportunities for access to locally produced fresh food and economic growth
 - The proposal is minor in scale, with the subject land directly adjoining existing R5 land.
 Therefore, it is compatible with the local land use context and would not adversely affect or conflict with the protection of agricultural land or opportunity.
- Priority 15 Preserve and enhance our natural environment
- Priority 16 Encourage ecologically sustainable development
- Priority 17 Plan for safer, more disaster resilient communities
 - As outlined in Section 4.3, the proposal would not significantly impact the natural environment, is consistent with ecologically sustainable development, and is suitably located to enable safety and adequate resilience to natural hazards/disasters.

Clarence Valley Settlement Strategy 1999

Clarence Valley Council does not have a specific Large Lot Residential/Rural Residential Strategy that guides the provision of future large lot residential development within the Clarence Valley Local Government Area. The strategic plan that provides guidance on the future zoning and subsequent development of land for urban and rural purposes is the Clarence Valley Settlement Strategy (CVSS) 1999. It is noted that the LSPS recommends that a new/updated Local Growth Management Strategy is prepared.



16

The objectives of the CVSS 1999 are to:

- accommodate future growth in suitable locations so as to minimise social, environmental and economic costs to State and local government, and to the wider community;
- build strong, self-reliant communities emphasising well-being and lifestyle;
- acknowledge and protect the natural environment and ecological processes;
- maintain and enhance biodiversity;
- preserve and enhance the Clarence Valley's urban, rural and scenic character; and
- build on the role of Grafton as the sub-regional centre and optimise the level of services offered.

The CVSS 1999 states that rural residential settlement will be contained in areas linked to existing settlements which can provide services and community identity and is to be clustered in areas having a direct functional relationship with town or village settlements. The Strategy discourages dispersed residential settlement at locations such as Halfway Creek, Kungala, Lanitza, Whiporie, Ewingar, Seelands, Coaldale, Braunstone, Blaxlands Flat-Kangaroo Creek and Pillar Valley, and dispersed agricultural populations in these and other parts of the Upper Clarence Valley.

The Waterview Heights locality is recognised in the CVSS 1999 as a closer rural settlement area. The Strategy outlines that Waterview Heights is an area where the existing rural residential cluster areas can be built upon, excluding land with certain constraints. The Strategy also notes that the northern part of Waterview Heights has the potential to be developed as an urban village. The Strategy states that (amongst other things):

"Waterview Heights has the potential to increase services for residents while reducing costs and impacts of development, improving energy and water conservation and maintaining some of the elements of the rural lifestyle. This would entail creating a carefully designed village precinct on undeveloped land north of the Gwydir Highway. A precinct could offer a range of smaller allotments from 700-1000 square metres, and would be designed as a whole to achieve a settlement which is oriented to the natural features of the site, and maximises rural outlook while creating a sense of neighbourhood."

It is noted that the CVSS 1999 is now over 20 years old and the new NCRP 2036 is in effect. Nonetheless, the proposal gives reasonable effect to and is justified in the context of both the regional and local strategic plans. The subject land is not located within the area north of the Gwydir Highway identified for the potential village precinct and therefore would not frustrate its future development. The subject land is located directly adjacent to land that is already zoned and developed for R5 Large Lot Residential purposes. This area is located south of the Gwydir Highway and part of the Waterview Heights large lot residential estate, which includes established and emerging R5 development in the immediate locality.

The proposal is generally consistent with the intent of the CVSS 1999 and would maintain the settlement hierarchy and pattern of rural residential development in this area, whilst maintaining social and economic viability and preserving natural landscape values. The proposal does not interface with intensive agriculture or other uses that could result in the potential for land use conflict. It would provide greater flexibility (albeit to a modest extent) in the use of the existing large lot residential style development on this land. Given the existing dwelling entitlements, the rezoning would not result in any notable or unreasonable impact upon existing service or infrastructure and would not adversely impact the natural environment or landscape. The proposal is considered supportable in the context of the CVSS 1999. It would give effect to the intent for large lot residential development in the Waterview Heights locality and allows for the limited, yet orderly and economic use of this land. There would be no unreasonable or unfavourable planning outcomes that would be contrary to the strategic plan.



17

4.2.3 Q5. Is the Planning Proposal consistent with applicable State Environmental Planning Policies?

The following section provides an outline of the State Environmental Planning Policies applicable to the Planning Proposal and future development of the site and provides commentary on issues to be considered by this Planning Proposal.

State Environmental Planning Policy (Koala Habitat Protection) 2021

State Environmental Planning Policy (Koala Habitat Protection) 2021 commenced on 17 March 2021. The Koala SEPP 2021 reinstates the policy framework of SEPP Koala Habitat Protection 2019 to 83 Local Government Areas (LGA) in NSW. At this stage:

- In nine of these LGAs Metropolitan Sydney (Blue Mountains, Campbelltown, Hawkesbury, Ku-Ring-Gai, Liverpool, Northern Beaches, Hornsby, Wollondilly) and the Central Coast LGA – Koala SEPP 2021 applies to all zones.
- In all other identified LGAs, Koala SEPP 2021 does not apply to land zoned RU1 Primary Production, RU2 Rural Landscape or RU3 Forestry.

The subject site is zoned RU2 under the Clarence Valley Local Environment Plan 2011, therefore Koala SEPP 2021 does not apply.

For all RU1, RU2 and RU3 zoned land outside of the Sydney Metropolitan Area and the Central Coast, Koala SEPP 2020 continues to apply. This is an interim measure while new land management and private native forestry codes are developed. The Koala SEPP 2020 replicates the objectives and provisions of SEPP 44, which was in force from 1995 through to 2019. Koala SEPP 2020 is addressed below.

State Environmental Planning Policy (Koala Habitat Protection) 2020

State Environmental Planning Policy (Koala Habitat Protection) 2020 ('Koala SEPP 2020') commenced 30 November 2020 to replace and repeal the State Environmental Planning Policy (Koala Habitat protection) 2019 (2019 Koala SEPP). The Koala SEPP 2020 replicates the objectives and provisions of SEPP 44, which was in force from 1995 through to 2019. The SEPP:

- Provides a framework for councils to prepare a strategic koala plan of management that would apply to the whole or part of a local government area.
- Applies to development applications on land over one hectare in a relevant LGA.
- Requires development applications to be consistent with a council strategic koala plan of management that applies to the land, or, if there is no strategic plan, sets out a two-step process to determine if the land is core koala habitat and if it is, produce an Individual Koala Plan of Management before council can grant consent to a development application.
- Exempts clearing of vegetation from the application of the SEPP if the purpose of the clearing is to maintain an Asset Protection Zone as part of rebuilding a dwelling destroyed or damaged by bushfire and allows the dwelling to be sited anywhere on the lot.
- Saves all Koala Plans of Management approved under SEPP 44 and 2019 Koala SEPP.

A biodiversity assessment (**Appendix F**), including consideration of Koala habitat and impacts, has been prepared to support this Planning Proposal.

In summary, the biodiversity assessment confirms that localised occurrences of the Schedule 2 tree species Forest Red Gum occur throughout established vegetation in the western portion of the site and comprises \geq 15% of the total number of trees in the upper or lower strata of the tree component.



The assessment concludes that based on the intended land use (i.e. no intensification) and field assessment results, biodiversity impacts of the proposal are negligible, particularly with the retention of woody vegetation within the site. Notwithstanding this, given core Koala habitat occurs at the site a Koala Plan of Management (KPoM) is required to accompany any future development application. Refer to the biodiversity assessment (**Appendix F**) for further detail.

State Environmental Planning Policy No 55 Remediation of Land

Clause 6 of SEPP 55 (relating to rezoning) has been repealed. Nonetheless, in accordance with Section 9.1 Directions (discussed in **Section 4.2.4**), contamination has been investigated and a Phase 1 Preliminary Site Investigation prepared (refer to **Appendix E**). There is no evidence of contamination that would prohibit the proposal.

State Environmental Planning Policy (Primary Production and Rural Development) 2019

The relevant aims of this Policy are as follows:

- to facilitate the orderly economic use and development of lands for primary production,
- to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources,
- to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,
- to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts,
- to encourage sustainable agriculture, including sustainable aquaculture.

The existing use of the land proposed to be rezoned is a large lot residential style development that offers little or no opportunity for broad acre farming and limits the scope of agricultural pursuits on this portion of the site. The retention of the 39.02ha as RU2 Rural Landscape zone will maintain the existing productive ability of the site. As there is no nearby intensive agricultural activity and given the proposal will not result in any significant change of uses on the site it is unlikely to generate any future land use conflicts. Furthermore, the site immediately adjoins existing zoned and developed R5 Large Lot Residential land, indicating that such land uses in this locality are acceptable and can co-exist with surrounding rural land. As such it is considered that the proposal will maintain the site's consistency with the aims of the State Environmental Planning Policy (Primary Production and Rural Development) 2019.

4.2.4 Q6. Is the Planning Proposal consistent with applicable Ministerial Directions (s. 9.1 (formerly 117) directions)?

Directions made under Section 9.1 (formerly section 117) of the *Environmental Planning and Assessment Act 1979*, issued on or after the 1 July 2009, have been reviewed (i.e. 11 December 2020 version of Ministerial Directions). Those that are relevant to the site/proposal are identified and addressed in **Table 4.2** below.



Table 4.2 Section 9.1 Directions

Direction No.	Requirements/Objectives/ Relevance	Consideration	
1. Employment and Resources			
1.1 Business and Industrial Zones	Not Relevant	The Planning Proposal does not affect land within an existing or proposed business or industrial zone.	
No. 1.2 – Rural Zones	 A Planning Proposal must: not rezone land from a rural zone to a residential, business, industrial, village or tourist zone. not contain provisions that will increase the permissible density of land within a rural zone (other than land within an existing town or village). A Planning Proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Department of Planning that the provisions of the Planning Proposal that are inconsistent are: a. justified by a strategy which: i. gives consideration to the objectives of this direction; ii. identifies the land which is the subject of the Planning Proposal (if the Planning Proposal (if the Planning Proposal celates to a particular site or sites), and b. justified by a study prepared in support of the Planning Proposal which gives consideration to the objectives of this direction; or b. justified by a study prepared in support of the Planning Proposal which gives consideration to the objectives of this direction, or c. in accordance with the relevant Regional Strategy or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objectives of this direction, or 	This Planning Proposal seeks to rezone a small and limited section of land that adjoins land zoned and developed as R5 large lot residential land. The proposal is not specifically referenced in the CVSS 1999 or NCRP 2036 growth maps, however the Waterview Heights area is specifically referenced in the strategy as being suitable for rural residential/large lot residential purposes, and also having potential to be developed further as a village. Due to the existing use on the site the proposed rezoning would not impact on the development/creation of this village precinct. The proposal is not specifically referenced in the NCRP 2036, however an assessment against the Assessment Criteria provided in the DPIE guide to preparing planning proposals (given the lack of Sustainability Criteria in the NCRP 2036) demonstrates that the proposal is consistent with the criteria and justified given its site-specific merit (refer to Section 4.2.1). The proposal would not adversely impact or conflict with intensive or significant agricultural land and can effectively integrate with existing R5 land and co-exist in this locality. Given the small amount of land proposed to be rezoned, the fact that the proposal adjoins existing large lot residential land and is currently used as a large lot residential style development the proposal is therefore justified and acceptable.	
1.3 Mining, Petroleum Production and Extractive Industries	Not relevant/applicable	The Planning Proposal would not have the effect of restricting or prohibiting the mining of coal or other minerals,	



Direction No.	Requirements/Objectives/ Relevance	Consideration
		production of petroleum, or winning or obtaining of extractive materials. Additionally, there are no areas of mapped/identified State or regionally significant extractive resources or minerals nearby.
1.4 Oyster Aquaculture	Not relevant	The Planning Proposal does not seek a change in land use which could result in adverse impacts on a Priority Oyster Aquaculture Area or a "current oyster aquaculture lease in the national parks estate".
1.5 – Rural Lands	A Planning Proposal must be consistent with strategic plans/policy and consider a range of matters in relation to the adequate protection/support of agriculture.	Although not specifically identified as a growth area in strategic plans, the proposal is on balance generally consistent with the relevant aims and objectives as outlined in Section 4.2.1 and 4.2.2 .
	A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Secretary of the Department of Planning & Environment (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are: (a) justified by a strategy which: i. gives consideration to the objectives of this direction, ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and iii. is approved by the Secretary of the Department of Planning & Environment and is in force, or (b) is of minor significance.	The proposal is of minor significance and aligned with the objectives of this Direction. The subject land is already partly used for rural residential lifestyle purposes, immediately adjacent to existing R5 zoned land. There is no land in proximity identified to be State Significant Farmland or Biophysical Strategic Agricultural Land. The proposal would not cause the loss of or conflict with intensive or important agricultural land/activity. Environmental values are suitably protected and would not be significantly affected. The site is suitable for R5 purposes and use, with an existing dwelling and associated services/improvements already established on the proposed subdivision lot. The proposal would not cause fragmentation of rural land and is suitably sited to integrate directly with adjoining R5 land. Given these features and context, and consistency with the Direction objectives, the proposal is of minor significance and justified.
2. Environment an	d Heritage	
2.1 Environment Protection Zones	A planning proposal must have regard to the protection and conservation of environmentally sensitive areas.	The Planning Proposal will not impact on any environmentally sensitive areas.



Direction No.	Requirements/Objectives/ Relevance	Consideration
2.2 Coastal Protection	Not applicable	The Planning Proposal does not impact on any land that is within the Coastal protection zone or land affected by State Environmental Planning Policy (Coastal Management) 2018.
2.3 Heritage Conservation	Not applicable	No heritage exists on the site nor would any works be likely to disturb any relics.
2.4 Recreation Vehicle Areas	Not applicable	The Planning Proposal does not seek to enable land to be developed for the purpose of a recreation vehicle area within the meaning of the Recreation Vehicles Act 1983.
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	Not applicable	Not applicable
2.6 Remediation of Contaminated Land	The objective of this direction is to reduce the risk of harm to human health and the environment by ensuring that contamination and remediation are considered by planning proposal authorities.	The subject land is assumed to have been historically used for livestock grazing and dwellings. Based on a review of the available desktop data and observations made during an inspection of the site, the land is unlikely to have been contaminated by previous land uses and practices. A Phase 1 Preliminary Contamination Investigation, in accordance with relevant guidelines, has been prepared confirming that there is no identified contamination on-site and that the proposed large lot residential use is considered suitable (Refer to Appendix E).
3. Housing, Infrastru	ucture and Urban Development	
3.1 Residential Zones	 This direction applies when a relevant planning authority prepares a Planning Proposal that will affect land within: a. an existing or proposed residential zone (including the alteration of any existing residential zone boundary); b. any other zone in which significant residential development is permitted or proposed to be permitted. 	The proposal is adjacent to existing large lot residential development (R5 zone) and seeks to rezone a small portion of land to allow for such development. The proposal is not inconsistent with this direction.



Direction No.	Requirements/Objectives/	Consideration
	Relevance	
3.2 Caravan Parks and Manufactured Home Estates	Not applicable	The Planning Proposal does not affect a caravan park or manufactured home estate.
3.3 Home Occupations	The objective of this direction is to encourage the carrying out of low- impact small businesses in dwelling houses. Planning Proposals must permit home occupations to be carried out in dwelling houses without the need for development consent.	The proposal is consistent with this direction.
3.4 Integrating Land Use and Transport	 To ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives: improving access to housing, jobs and services by walking, cycling and public transport; increasing the choice of available transport and reducing dependence on cars; reducing travel demand including the number of trips generated by development and the distances travelled, especially by car; supporting the efficient and viable operation of public transport services; and providing for the efficient movement of freight. 	The proposal adjoins an existing large lot residential area and would utilise an existing road for access to the future lot. The proposal is very limited in scope and development potential and will not create additional significant demand on infrastructure. The proposal is consistent with this direction.
3.5 Development Near Licensed Aerodrome	Not Applicable	The Planning Proposal does not seek to create, alter or remove a zone or a provision relating to land in the vicinity of a licensed aerodrome.
3.6 Shooting Ranges	Not applicable	The Planning Proposal does not seek to create, alter or remove a zone or a provision relating to land adjacent to and/or adjoining an existing shooting range.
3.7 Reduction in non-hosted short term rental accommodation period	Not applicable	Not applicable
4. Hazard and Risk		
4.1 Acid Sulfate Soils	To avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils.	The site is not within land likely to contain acid sulfate soils.



Direction No.	Requirements/Objectives/	Consideration
	Relevance	
4.2 Mine Subsidence and Unstable Land	Not applicable	The Planning Proposal is not within a designated mine subsidence district and is not identified as being unstable.
4.3 Flood Prone Land	Not applicable	The site is not subject to flooding
4.4 Planning for Bushfire Protection	 A Planning Proposal must: a. have regard to Planning for Bushfire Protection 2019, b. introduce controls that avoid placing inappropriate developments in hazardous areas, and c. ensure that bushfire hazard reduction is not prohibited within the APZ. 	The Planning Proposal is consistent with this direction. The land subject to this Planning Proposal is not mapped, or proximal to land mapped (it is approximately 2km from the nearest bushfire prone mapping), as bushfire prone according to Council's bushfire prone land mapping. Notwithstanding this, it is noted that the site is situated in rural surrounds with varying levels of interspersed vegetation. However, the dwelling and infrastructure is existing, and the proposed rezoning and future minor subdivision is not expected to change bushfire risk. It may nonetheless be prudent to undertake a Bushfire Attack Level (BAL) assessment to ensure adequate protection if deemed necessary or when future relevant development applications are proposed which may have a bearing on this risk.
5. Regional Plannin	g	
No. 5.1 Implementation of Regional Strategies	Revoked.	N/A
5.2 Sydney Drinking Water Catchment	Not applicable	The Planning Proposal is not within the Sydney Drinking Water Catchment.
No. 5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable	The site is not identified as being State or regionally significant farmland.
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable	This direction does not apply to the Planning Proposal.
5.9 North West Rail Link Corridor Strategy	Not applicable	This direction does not apply to the Planning Proposal.
5.10 Implementation of Regional Plans	Planning proposals must be consistent with a Regional Plan	As outlined throughout the relevant parts of the Planning Proposal, although the site is not specifically



Direction No.	Requirements/Objectives/ Relevance	Consideration
	released by the Minister for Planning. A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Secretary of the Department of Planning and Environment (or an officer of the Department nominated by the Secretary), that the extent of inconsistency with the Regional Plan: (a) is of minor significance, and (b) the planning proposal achieves the overall intent of the Regional Plan and does not undermine the achievement of its vision, land use strategy, goals, directions or actions.	identified for growth and is therefore somewhat inconsistent with the NCRP 2036, the proposal is clearly of minor significance and achieves the overall intent of the NCRP 2036. It would not undermine the achievement of its vision, land use strategy, goals, directions or actions. This is permissible under, and in accordance with, this Direction.
5.11 Development of Aboriginal Land Council land	The objective of this direction is to provide for the consideration of development delivery plans prepared under State Environmental Planning Policy (Aboriginal Land) 2019 when planning proposals are prepared by a planning proposal authority.	Not applicable to Clarence Valley LGA.
6. Local Plan Making	g	
6.1 Approval and Referral Requirements	Not applicable	The Planning Proposal does not include provisions that require the concurrence, consultation or referral of development applications to a minister or public authority and does not identify development as designated development.
6.2 Reserving Land for Public Purposes	Not applicable	This direction does not apply to the Planning Proposal.
6.3 Site Specific Provisions	Not applicable	The Planning Proposal is consistent with this direction. The proposal does not intend to amend another environmental planning instrument in order to allow a particular development proposal to be carried out. The Planning Proposal does not refer to drawings for any such development.
7. Metropolitan Plan	ning	
7.1 to 7.10	Not applicable	These Directions do not apply to the Clarence Valley Council area.



Overall, the proposal is consistent with most of the relevant Section 9.1 Directions. Where some inconsistency has been identified, this is of minor significance and inconsequential. Such inconsistency is permissible under the relevant Directions and justified as outlined in this Planning Proposal (and as agreed by the Department of Planning, Industry and Environment's Gateway determination). The proposal is suitable for the site context, would effectively integrate into the existing R5 Large Lot Residential areas of Waterview Heights (including the immediately adjoining R5 zone), would not adversely impact the environment, agriculture, or strategic intent of policy, and is acceptable due to its limited scope and minor significance.

4.3 Environmental, Social and Economic Impact

4.3.1 Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The site is currently developed with two dwellings and associated infrastructure. The Planning Proposal seeks rezoning to allow for future subdivision to enable the dwellings to be accommodated on separate/independent lots. No clearing is proposed or expected. A biodiversity assessment report (refer to **Appendix F**) has been prepared to support this Planning Proposal. The ecological field assessment recorded the following key results:

- No threatened ecological communities (TECs) occur at the site.
- No threatened flora species occur at the site.
- One Rufous Bettong (Aepyprymnus rufescens) (listed as vulnerable under the BC Act) was
 observed dispersing from grassy understorey during random meander surveys in eastern portion
 of the site.
- The preferred Koala feed trees Forest Red Gum and Grey Box are common at the site.
- The Koala Spot Assessment Technique survey results indicate that Koalas utilise the site at varying (low to high) levels.
- One hollow-bearing tree (Grey Box, 80cm DBH, with one medium and 3 small limb hollows) occurs within the proposed rezoning alignment on the western boundary. Numerous hollowbearing trees occur more broadly within the site and provide habitat for hollow-obligate fauna such as gliders, microbats and nesting birds.
- No significant habitat for threatened fauna occurs within the development site, which does not
 occur more broadly at the site and locality.

Overall, existing residences and fencing between each preliminarily proposed lot is present along the proposed rezoning delineation, hence no vegetation removal is required for the proposal. Based on the intended land use (i.e. no intensification) and field assessment results, biodiversity impacts of the proposal are negligible, particularly with the retention of woody vegetation within the site.

As there is no proposed net increase in traffic or residents:

- Disturbance to fauna during ongoing occupation (above levels currently occurring) is not anticipated.
- Intensification of potential disturbance/modification to areas of retained native vegetation is not anticipated.

Should intensification of development be proposed in the future (e.g. additional residences in the form of dual occupancies, where permissible), this would be subject to further detailed assessment and Council approval as part of any future development application(s).



No vegetation or construction works are required for the proposal hence no mitigation measures are prescribed. Mitigation measures however would apply should intensification of development be proposed in the future (e.g. additional residences), which would be identified in the development application and/or Council consent conditions.

The proposal is acceptable from a biodiversity perspective and would not result in any unreasonable or significant ecological impact.

4.3.2 Q8. Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?

Contamination

The subject land has historically been used for residential and cattle grazing purposes. A Phase 1 Preliminary Site Investigation (refer to **Appendix E**) has been prepared. Based on a review of the available desktop data, observations made during the site inspection and sampling and laboratory testing results, it is determined that the soil within the proposed rezoning area/Lot 1 is not subject to contamination by previous land uses and practices. It is considered that the soil contamination status reported is not prohibitive to the proposed development (i.e. subdivision of land/ re-zoning to RU5 for large lot residential). Therefore, no further investigation (detailed site assessment) is required.

Aboriginal Heritage

The subject site of the proposal and the surrounding area have been extensively modified and disturbed as a result of land clearing, infrastructure development, residential development and past/ongoing land use practices. Given the context of the site and range of disturbance, it is unlikely that there is a high risk of disturbing Aboriginal items or objects. A search of the Aboriginal Heritage Information Management System (AHIMS) (refer to search at **Appendix C**) found no registered items or objects of Aboriginal cultural heritage within or near (within a 200m buffer) the subject site.

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* provides an assessment process to determine if the proposed activity may harm Aboriginal objects and to determine whether further investigation is required. An assessment against the relevant considerations is provided in the table below.

Table 4.3 Generic Due Diligence Process

Generic Due Diligence Process	Proposed Activity	
Will the activity disturb the ground surface or any culturally modified trees?	The proposal is for minor rezoning and future subdivision of a small parcel of land that already accommodates a dwelling and associated infrastructure/improvements. No ground disturbance or tree removal is proposed or expected at this stage.	
 Are there any: 1. Relevant confirmed site records or other associated landscape features information on AHIMS? and/or 2. Any other sources of information of which a person is already aware? and/or 	 A search of the AHIMS database revealed that there are no registered items/sites within or immediately near the subject site. There are no sources of information of which the author is aware. Given the disturbance history of the site, there is nothing to suggest that Aboriginal objects are likely to exist on the site. The site has been used for dwelling and grazing purposes and is located immediately adjacent to R5 large lot residential development. The site is more than 200 m from 	



Generic Due Diligence Process		Proposed Activity	
	e features that are dicate presence of objects?	defined waterways. It is not located within or near a sand dune system, ridge top, ridge line or headland. The site is not within 200 m of a cliff face or within 20 m of a cave, rock shelter or cave mouth. The proposal affects land that is highly disturbed and already developed with a dwelling and associated works/improvements. There are no obvious landscape features that indicate that there could be the potential for Aboriginal objects to be present.	

Given the above, it is reasonable to conclude that there are no known Aboriginal objects/sites on the site, and it is unlikely that cultural heritage objects/sites would occur/remain at the site undiscovered. The generic due diligence process indicates the proposal can proceed without further assessment. In addition, most of the site is cleared of vegetation and the dwellings and associated infrastructure are existing. No additional clearing or construction is proposed or anticipated at this stage. Standard safeguards for unexpected finds would be implemented as a precautionary measure when submitting future development applications.

Overall, the proposal is low risk and the development is not likely to impact upon Aboriginal material and cultural heritage values. No further assessment is required/warranted.

European Heritage

Heritage database searches (refer to **Appendix D**) revealed that no items of non-Indigenous/ European heritage significance are known within or immediately adjacent to the subject site. The site, nor those adjoining, are listed in Schedule 5 (Environmental Heritage) of the CVLEP 2011. No impacts are anticipated.

Visual Amenity

The area proposed to be rezoned is currently developed with a large lot residential style development. The Planning Proposal would allow for minor subdivision only so that the two existing dwellings can be accommodated on individual lots. The proposal would integrate with the adjoining R5 large lot residential zoning and is consistent with the local pattern and character of development. Impacts of the Planning Proposal on the visual amenity of the locality would be negligible.

Potential Hazards

It is noted that the dwelling and infrastructure are existing. The site is not identified/mapped as being, nor is it close to, mapped flood or bushfire prone land. The site is suitable for the proposed rezoning. Notwithstanding this, it is noted that the site is situated in/near rural surrounds with varying levels of interspersed vegetation. However, the proposed rezoning and future minor subdivision is not expected to change bushfire risk. It may nonetheless be prudent to undertake a Bushfire Attack Level (BAL) assessment to ensure adequate protection if deemed necessary or when future relevant development applications are proposed which may have a bearing on this risk.

Cumulative Impacts

Given the existing development on the land and minor scale, the proposed future subdivision of the land is unlikely to result in cumulative environmental effects. In addition, potential impacts on the environment would be minimised with the effective implementation of the safeguards and mitigation measures required under any future development application.



4.3.3 Q9. Has the Planning Proposal adequately addressed any social and economic effects?

The Planning Proposal is not expected to generate any significant adverse social or economic impacts. European and Aboriginal cultural heritage have been addressed previously. No impacts are expected/likely. The proposal will enable subdivision to create an additional lot that would accommodate an existing dwelling, with very limited further development potential.

There would be negligible, to no, impact upon social infrastructure such as schools and health facilities given the very restrained scale of the proposal and presence of existing dwellings on the site that would be afforded independent lots by way of future subdivision.

The proposal is suitable and would effectively integrate with the Waterview Heights large lot residential estate and is consistent with the local pattern and character of development. No further specific social or economic matters require additional assessment.

4.4 State and Commonwealth Interests

4.4.1 Q10. Is there adequate public infrastructure for the Planning Proposal?

The site is located on Hampton Road and adjacent to part of the Waterview Heights large lot residential area west of Grafton. The estate does not have reticulated sewer. The area is serviced by sealed roads, reticulated water, electricity and telecommunication infrastructure. However, it is noted that the sealed portion of Hampton Road ends adjacent to the existing driveway associated with the land parcel that is proposed to be rezoned. Given the proposal is very minor, the need to seal/upgrade the portion of road adjacent to the rezoned portion of land is not considered necessary, however this will be informed by Council and agency feedback as relevant. The land proposed for rezoning is currently developed with two dwellings with existing connection/access to all essential services.

Overall, the proposal is minor in scope and has very limited development potential with no significant infrastructure or service upgrades required. Any further minor upgrade to services or infrastructure is to be determined in subsequent stages. No notable or unreasonable increased demand for services or infrastructure as a result of the Planning Proposal is expected and the rezoning can be adequately catered for.

4.4.2 Q11. What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

The Department of Planning, Industry and Environment issued a Gateway Determination on 17th September 2021 which determined that the Planning Proposal should proceed subject to application of a 8000 m² minimum lot size over the proposed area to be rezoned. The Gateway Determination also outlines that consultation is required with various public authorities/ organisations and this is yet to occur. Each public authority/organisation will be provided with a copy of the planning proposal and any relevant supporting material and given at least 21 days to comment. Council will consider consultation responses as part of the plan-making process.



5. Mapping (Part 4)

Planning Proposals are required to be supported by relevant and accurate mapping where appropriate. Relevant mapping for the proposal is included in **Section 1** and **Section 3** of this Planning Proposal.



6. Community Consultation (Part 5)

The Gateway determination has outlined the following consultation requirements for the Planning Proposal.

Public exhibition is required under Section 3.34(2)(c) and Schedule 1 clause 4 of the EP&A Act as follows:

- the planning proposal must be made publicly available for a minimum of 28 days; and
- the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in Section 6.5.2 of A guide to preparing local environmental plans (Department of Planning and Environment, 2018).

Consultation is required with the following public authorities/organisations under Section 3.34(2)(d) of the EP&A Act, and/or to comply with the requirements of relevant Section 9.1 Directions:

- Department of Primary Industries Agriculture
- NSW Biodiversity and Conservation Division
- Grafton Ngerrie Local Aboriginal Land Council
- Natural Resource Access Regulator
- NSW Rural Fire Service
- NSW Mining, Exploration and Geoscience
- Essential Energy
- Transgrid.

Each public authority/organisation would be provided with a copy of the Planning Proposal and any relevant supporting material and given at least 21 days to comment on the proposal.

A public hearing is not considered necessary and is not required.



31

7. Project Timeline (Part 6)

The Gateway determination has set out requirements, including consultation/public exhibition and an expected timeframe for completion of the Local Environmental Plan amendment. The Gateway determination has outlined that the amendment should be finalised within nine months of the date of the Gateway determination (17th September 2021). As a preliminary indication, the following table provides estimated timeframes for some of the relevant steps and key milestones to achieve the amendment of the Local Environmental Plan in this timeframe.

Table 7.1 Estimated Local Environmental Plan amendment milestones and associated timeframes

Step/Milestone	Estimated Timeframe/Completion Date
Gateway determination	17 September 2021
Public Exhibition of Planning Proposal and consultation with public authorities	October/November 2021
Assessment/consideration of submissions	December 2021
Officer report to Council (post exhibition)	December 2021
LEP Legal drafting phase	January/February 2022
Making of final plan and notification of the LEP amendment	March 2022


8. Conclusions and Recommendations

This Planning Proposal is to rezone a small part of Lot 231 DP880455 from RU2 Rural Landscape to R5 Large Lot Residential, to enable subdivision of the site, including creation of one large residential lot and one rural landscape lot. Based on the proposed amended minimum lot size control, there would be no further subdivision potential beyond that described in this Planning Proposal. The rezoning and subsequent subdivision would allow the two existing dwellings to be separated onto individual lots. The site is located adjacent to part of the existing Waterview Heights large lot residential estate, adjoins existing R5 Large Lot Residential zoning, and is not inconsistent with the general direction of the Clarence Valley Settlement Strategy 1999.

It is acknowledged that the strategic and statutory planning framework that applies to the site does not specifically identify the area/site for this type of development and therefore there is minor inconsistency with strategic policy. However, this assessment has found the proposal to be acceptable when considered against the Assessment Criteria in the DPIE *guide to preparing planning proposals*. The proposal is also largely consistent with the Section 9.1 Directions. Where some inconsistency has been identified, this is of only minor significance and is inconsequential. Such a degree of inconsistency is permissible and justified, and the proposal has site-specific and planning merit.

Furthermore, the existing development of the land already in part is akin to a large lot residential style development/lifestyle. The proposal to rezone this portion of land will not undermine the overall direction or intent of the relevant regional and local strategic plans. It would not result in any major inconsistency with the strategic or statutory planning framework, nor would it result in adverse or unintended/undesirable land use planning consequences. Furthermore, the scope of works required to achieve the future development will not impact the amenity, character, environment, or agricultural values of the area. The proposal is based on acceptable planning grounds, represents orderly infill style development, and is inconsequential given the restrained scope and compatibility with adjoining land uses. Overall, the Planning Proposal can be supported as it is of minor significance and the overall intent of the relevant strategic and statutory planning framework would not be undermined.

The objective of the Planning Proposal is to rezone part (9,800m²) of Lot 231 DP880455 from RU2 Rural Landscape to R5 Large Lot Residential. The rezoning is considered the most appropriate way for the proposal to proceed and is justified. Making of the proposed minor amendment to the LEP is acceptable in this context.



References

Clarence Valley Council, (1999) Clarence Valley Settlement Strategy, [Online]. Available: https://www.clarence.nsw.gov.au/cp_themes/metro/page.asp?p=DOC-YGS-00-22-31. [Accessed February 2021]

Clarence Valley Council, (2020) Clarence Valley Council Local Strategic Planning Statement, [Online]. Available: https://www.clarence.nsw.gov.au/cp_themes/metro/page.asp?p=DOC-SYU-25-10-81. [Accessed February 2021]

Clarence Valley Council, (undated) The Clarence 2027, [Online]. Available: https://www.clarence.nsw.gov.au/cp_themes/metro/page.asp?p=DOC-SYU-25-10-81. [Accessed February 2021]

NSW Government Department of Planning, (2009) Mid North Coast Regional Strategy, [Online]. Available: <u>https://www.planning.nsw.gov.au/~/media/Files/DPE/Strategy-documents/mid-north-coast-regional-strategy-2006-to-2031-2009-03.ashx</u> [Accessed February 2021]

NSW Government Department of Planning, (2007) Settlement Planning Guidelines: Mid and Far North Coast Regional Strategies, [Online]. Available: https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/settlement-planning-guidelines-mid-and-far-north-coast-regional-strategies-2007-08.pdf [Accessed February 2021]

NSW Government Planning & Environment (2017) North Coast Regional Plan 2036, [Online]. Available: <u>https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/north-coast-2036-regional-plan-2017.pdf</u> [Accessed February 2021]

NSW Government Planning & Environment, (2018) Planning Proposals: A guide to preparing planning proposals, [Online]. Available: <u>https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/guide-to-preparing-planning-proposals-2019-02-05.pdf</u>. [Accessed February 2021]

Parliamentary Counsels Office, (2021) Government of New South Wales Legislation home page, [Online]. Available: <u>NSW Government Legislation Home Page</u>. [Accessed February 2021]



Copyright and Usage

©GeoLINK, 2021

This document, including associated illustrations and drawings, was prepared for the exclusive use of Joseph McCabe/O'Donahue Hanna & Associates to accompany a Planning Proposal. It is not to be used for any other purpose or by any other person, corporation or organisation without the prior consent of GeoLINK. GeoLINK accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

This document, including associated illustrations and drawings, may not be reproduced, stored, or transmitted in any form without the prior consent of GeoLINK. This includes extracts of texts or parts of illustrations and drawings.

The information provided on illustrations is for illustrative and communication purposes only. Illustrations are typically a compilation of data supplied by others and created by GeoLINK. Illustrations have been prepared in good faith, but their accuracy and completeness are not guaranteed. There may be errors or omissions in the information presented. In particular, illustrations cannot be relied upon to determine the locations of infrastructure, property boundaries, zone boundaries, etc. To locate these items accurately, advice needs to be obtained from a surveyor or other suitably qualified professional.

The dimensions, number, size and shape of lots shown on drawings are subject to detailed engineering design, final survey and Council conditions of consent.

Topographic information presented on the drawings is suitable only for the purpose of the document as stated above. No reliance should be placed upon topographic information contained in this report for any purpose other than that stated above.



Appendix A

Preliminary Plan of Subdivision





Appendix B

Strategic Plan and Policy Consistency Checklists



Table B1 NORTH COAST REGIONAL PLAN 2036 CONSISTENCY CHECKLIST

NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
Goal 1 - The most stunning environment in NSW	I	I
Direction 1 - Deliver environmentally sustainable growth		
Action 1.1 - Focus future urban development to mapped urban growth areas.	Not directly; however, this is of minor significance and is justifiable.	The CVLEP 2013 map Sheet CL1_007H does not map the site as an urban release area, nor dos the Growth Areas Map of Clarence South (Mid North Coast Regional Strategy). However, the proposal is for minor large lot residential rezoning directly adjoining land already zoned and developed for this purpose. Further, the CVSS 1999 identifies parts of Waterview Heights for this purpose. Therefore, the proposal is considered reasonable and to have site-specific merit, despite not being specifically identified in a strategic plan/growth area map.
<u>Action 1.2</u> - Review areas identified as 'under investigation' within urban growth areas to identify and map sites of potentially high environmental value.	Yes.	The site is not identified as an 'investigation area'; however, it has been assessed. It does not pose significant environmental constraints that would restrict the proposed zoning or future subdivision, demonstrating that the proposal warrants consideration and has



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
		merit. Further assessment would be carried out after Gateway determination, as/if required.
<u>Action 1.3</u> - Identify residential, commercial or industrial uses in urban growth areas by developing local growth management strategies endorsed by the Department of Planning and Environment.	Not directly; however, this is of minor significance and is justifiable.	The site is not identified as being in an urban growth area. However, the proposal is for minor large lot residential rezoning directly adjoining land already zoned and developed for this purpose. Further, the CVSS 1999 identifies parts of Waterview Heights for this purpose. The proposal is considered to be minor, reasonable and to have site-specific merit.
<u>Action 1.4</u> - Prepare land release criteria to assess appropriate locations for future residential, commercial and industrial uses.	-	No specific criteria are in the NCRP. Section 4.2.1 of this report discusses how the site is consistent with the Assessment Criteria outlined in the DPIE guide to preparing planning proposals. The site is consistent with the criteria given its small scale, negligible impacts and connection to land that is already zoned and developed for R5 Large Lot Residential purposes.

Direction 2 - Enhance biodiversity, coastal and aquatic habitats, and water catchments



CONSISTENCY	COMMENTS
Yes	Biodiversity constraints and impacts have been considered in this Planning Proposal. The proposal is minor and presents no significant biodiversity impacts.
Yes	None of these elements would be adversely impacted by the proposal.
Yes	The constraints and potential risks of the land have been considered in this Planning Proposal. The proposal is minor, and no significant risks or hazards are posed. Any remaining risk can be effectively managed.
N/A	
N/A	
	Yes



 COMMENTS	CONSISTENCY	NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS &
		ACTIONS
 		Direction 4 - Promote renewable energy opportunities
 	N/A	Action 4.1 - Diversify the energy sector by identifying renewable energy
		resource precincts and infrastructure corridors with access to the electricity
		network.
 	N/A	Action 4.2 - Enable appropriate smaller-scale renewable energy projects
		using bio-waste, solar, wind, small-scale hydro, geothermal or other
		innovative storage technologies.
	N/A	Action 4.3 - Promote appropriate smaller and community-scale renewable
		energy projects.
 		Goal 2 - A thriving, interconnected economy
	ationships	Direction 5 - Strengthen communities of interest and cross-regional rel
 	N/A	Action 5.1 - Collaborate on regional and intra-regional housing and
		employment land delivery, and industry development.
 	N/A	Action 5.2 - Integrate cross-border land use planning between NSW and
		South East Queensland, and remove barriers to economic, housing and
		jobs growth.
 	N/A	Action 5.3 - Encourage ongoing cooperation and land use planning between
		the City of Gold Coast and Tweed Shire Council.
 	N/A	employment land delivery, and industry development.Action 5.2- Integrate cross-border land use planning between NSW and South East Queensland, and remove barriers to economic, housing and jobs growth.Action 5.3- Encourage ongoing cooperation and land use planning between



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
<u>Action 5.4</u> - Prepare a regional economic development strategy that drives economic growth opportunities by identifying key enabling infrastructure and other policy interventions to unlock growth.	N/A	
Goal 2 - A thriving, interconnected economy		
Direction 6 - Develop successful centres of employment		
<u>Action 6.1</u> - Facilitate economic activity around industry anchors such as health, education and airport facilities by considering new infrastructure needs and introducing planning controls that encourage clusters of related activity.	N/A	
<u>Action 6.3</u> - Promote knowledge industries by applying flexible planning controls, providing business park development opportunities and identifying opportunities for start-up industries.	N/A	
<u>Action 6.3</u> - Reinforce centres through local growth management strategies and local environmental plans as primary mixed-use locations for commerce, housing, tourism, social activity and regional services.	N/A	
<u>Action 6.4</u> - Focus retail and commercial activities in existing centres and develop place–making focused planning strategies for centres.	N/A	
<u>Action 6.5</u> - Promote and enable an appropriate mix of land uses and prevent the encroachment of sensitive uses on employment land through local planning controls.	Yes	The proposal is an appropriate minor inclusion/expansion of R5 land directly adjoining existing such land. There is no





NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
		encroachment on or conflict with employment lands.
<u>Action 6.6</u> - Deliver an adequate supply of employment land through local growth management strategies and local environmental plans to support jobs growth.	N/A	
<u>Action 6.7</u> - Ensure employment land delivery is maintained through an annual North Coast Housing and Land Monitor.	N/A	
Direction 7 - Coordinate the growth of regional cities Action 7.1 - Prepare action plans for regional cities that:	N/A	
 Action 7.1 - Prepare action plans for regional cities that: ensure planning provisions promote employment growth and greater housing diversity; promote new job opportunities that complement existing employment nodes around existing education, health and airport precincts; identify infrastructure constraints and public domain improvements that can make areas more attractive for investment; and deliver infrastructure and coordinate the most appropriate staging and 	N/A	
sequencing of development. Goal 2 - A thriving, interconnected economy		
Goal 2 - A thriving, interconnected economy Direction 8 - Promote the growth of tourism		



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
<u>Action 8.1</u> - Facilitate appropriate large-scale tourism developments in prime tourism development areas such as Tweed Heads, Tweed Coast, Ballina, Byron Bay, Coffs Harbour and Port Macquarie.	N/A	
Action 8.2 - Facilitate tourism and visitor accommodation and supporting land uses in coastal and rural hinterland locations through local growth management strategies and local environmental plans.	N/A	
 <u>Action 8.3</u> - Prepare destination management plans or other tourism focused strategies that: identify culturally appropriate Aboriginal tourism opportunities; encourage tourism development in natural areas that support conservation outcomes; and strategically plan for a growing international tourism market. 	N/A	
<u>Action 8.4</u> - Promote opportunities to expand visitation to regionally significant nature-based tourism places, such as Ellenborough Falls, Dorrigo National Park, Wollumbin–Mount Warning National Park, Iluka Nature Reserve and Yuraygir Coastal Walk.	N/A	
<u>Action 8.5</u> - Preserve the region's existing tourist and visitor accommodation by directing permanent residential accommodation away from tourism developments, except where it is ancillary to existing tourism developments or part of an area otherwise identified for urban expansion in an endorsed local growth management strategy.	N/A	
Goal 2 - A thriving, interconnected economy		



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
Direction 9: Strengthen regionally significant transport corridors		
Action 9.1 - Enhance the competitive value of the region by encouraging business and employment activities that leverage major inter-regional transport connections, such as the Pacific Highway, to South East Queensland and the Hunter.	N/A	
<u>Action 9.2</u> - Identify buffer and mitigation measures to minimise the impact of development on regionally significant transport infrastructure including regional and state road network and rail corridors.	N/A	The site is not in proximity to major transport infrastructure.
 Action 9.3 - Ensure the effective management of the State and regional road network by: preventing development directly adjoining the Pacific Highway; preventing additional direct 'at grade' access to motorway-class sections of the Pacific Highway; locating highway service centres on the Pacific Highway at Chinderah, Ballina, Maclean, Woolgoolga, Nambucca Heads, Kempsey and Port Macquarie, approved by the Department of Planning and Environment and Roads and Maritime Services; and identifying strategic sites for major road freight transport facilities. 	Yes	The site adjoins a local road, with no direct connection to a major State or regional road. Site access is existing, practical and suitable.
Goal 2 - A thriving, interconnected economy Direction 10 - Facilitate air, rail and public transport infrastructure		
<u>Action 10.1</u> - Deliver airport precinct plans for Ballina–Byron, Lismore, Coffs Harbour and Port Macquarie that capitalise on opportunities to diversify and maximise the potential of value-adding industries close to airports.	N/A	



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
Action 10.2 - Consider airport-related employment opportunities and precincts that can capitalise on the expansion proposed around Gold Coast Airport.	N/A	
Action 10.3 - Protect the North Coast Rail Line and high-speed rail corridor to ensure network opportunities are not sterilised by incompatible land uses or land fragmentation.	N/A	
<u>Action 10.4</u> - Provide public transport where the size of the urban area has the potential to generate sufficient demand.	N/A	
<u>Action 10.5</u> - Deliver a safe and efficient transport network to serve future release areas.	N/A	
Goal 2 - A thriving, interconnected economy Direction 11: Protect and enhance productive agricultural lands		
<u>Action 11.1</u> - Enable the growth of the agricultural sector by directing urban and rural residential development away from important farmland and identifying locations to support existing and small-lot primary production, such as horticulture in Coffs Harbour.	Yes	As discussed in the relevant parts of this Planning Proposal, the proposal is minor in scale, with the subject land being modest in area and directly adjoining existing R5 zoned land. The proposal is compatible with the local land use context and would not adversely affect or conflict with important agricultural land. There is no nearby mapped State or regionally significant farmland nor any mapped Biophysical Strategic Agricultural Land.



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
		There is no proximal intensive agricultural activity either. The proposal is appropriate in this context.
<u>Action 11.2</u> - Deliver a consistent management approach to important farmland across the region by updating the Northern Rivers Farmland Protection Project (2005) and Mid North Coast Farmland Mapping Project (2008).	N/A	There is no nearby important/significant farmland that would be adversely affected.
<u>Action 11.3</u> - Identify and protect intensive agriculture clusters in local plans to avoid land use conflicts, particularly with residential and rural residential expansion.	Yes	As outlined in this report, there is no sensitive interface with intensive agriculture clusters. The proposal would not conflict with or limit agricultural use or productivity. The site adjoins existing R5 land and is compatible with the land use character and intent/expectations of this locality.
<u>Action 11.4</u> - Encourage niche commercial, tourist and recreation activities that complement and promote a stronger agricultural sector, and build the sector's capacity to adapt to changing circumstances.	N/A	
<u>Action 11.5</u> - Address sector-specific considerations for agricultural industries through local plans.	N/A	
Goal 2 - A thriving, interconnected economy		
Direction 12 - Grow agribusiness across the region		





NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
<u>Action 12.1</u> - Promote the expansion of food and fibre production, agrichemicals, farm machinery, wholesale and distribution, freight and logistics, and processing through flexible planning provisions in local growth management strategies and local environmental plans.	N/A	
<u>Action 12.2</u> - Encourage the co-location of intensive primary industries, such as feedlots and compatible processing activities.	N/A	
<u>Action 12.3</u> - Examine options for agribusiness to leverage proximity from the Gold Coast and Brisbane West Wellcamp airports.	N/A	
<u>Action 12.4</u> - Facilitate investment in the agricultural supply chain by protecting assets, including freight and logistics facilities, from land use conflicts arising from the encroachment of incompatible land uses.	N/A	
Goal 2 - A thriving, interconnected economy Direction 13 - Sustainably manage natural resources	L	L
<u>Action 13.1</u> - Enable the development of the region's natural, mineral and forestry resources by directing to suitable locations land uses such as residential development that are sensitive to impacts from noise, dust and light interference.	Yes	The site does not interface with rural or extractive industry and would not be affected by or conflict with such land uses or associated noise, dust or light emissions.
<u>Action 13.2</u> - Plan for the ongoing productive use of lands with regionally significant construction material resources in locations with established infrastructure and resource accessibility.	N/A	



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
Goal 3 - Vibrant and engaged communities		
Direction 14 - Provide great places to live and work		
<u>Action 14.1</u> - Prepare precinct plans in growth areas, such as Kingscliff, or centres bypassed by the Pacific Highway, such as Woodburn and Grafton, to guide development and establish appropriate land use zoning, development standards and developer contributions.	N/A	
$\underline{\text{Action 14.2}}$ - Deliver precinct plans that are consistent with the Precinct Plan Guidelines (Appendix C).	N/A	
Goal 3 - Vibrant and engaged communities Direction 15 - Develop healthy, safe, socially engaged and well-connec	ted communities	
<u>Action 15.1</u> - Deliver best-practice guidelines for planning, designing and developing healthy built environments that respond to the ageing demographic and subtropical climate.	N/A	
Action 15.2 - Facilitate more recreational walking and cycling paths and expand inter-regional and intra-regional walking and cycling links, including the NSW Coastline Cycleway.	N/A	
<u>Action 15.3</u> - Implement actions and invest in boating infrastructure priorities identified in regional boating plans to improve boating safety, boat storage and waterway access.	N/A	



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
<u>Action 15.4</u> - Create socially inclusive communities by establishing social infrastructure benchmarks, minimum standards and social impact assessment frameworks within local planning.	N/A	
<u>Action 15.5</u> - Deliver crime prevention through environmental design outcomes through urban design processes.	N/A	
Goal 3 - Vibrant and engaged communities Direction 16 - Collaborate and partner with Aboriginal communities		· ·
<u>Action 16.1</u> - Develop partnerships with Aboriginal communities to facilitate engagement during the planning process, including the development of engagement protocols.	N/A	
<u>Action 16.2</u> - Ensure Aboriginal communities are engaged throughout the preparation of local growth management strategies and local environmental plans.	Yes	The site is an existing, heavily disturbed parcel of land. The proposed rezoning is minor and limited to existing disturbed and developed land. The rezoning and future subdivision is very unlikely to affect Aboriginal Cultural Heritage and is acceptable. Community engagement would occur through exhibition of the Planning Proposal. This is considered adequate given the minor nature and context of the proposal.



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS
Direction 17: Increase the economic self-determination of Aboriginal co	ommunities	
Action 17.1 - Deliver opportunities to increase the economic independence of Aboriginal communities through training, employment and tourism.	N/A	
<u>Action 17.2</u> - Foster closer cooperation with Local Aboriginal Land Councils to identify the unique potential and assets of the North Coast communities.	N/A	
<u>Action 17.3</u> - Identify priority sites with economic development potential that Local Aboriginal Land Councils may wish to consider for further investigation.	N/A	
Goal 3 - Vibrant and engaged communities	L	
Direction 18 - Respect and protect the North Coast's Aboriginal heritag	e	
Action 18.1 - Ensure Aboriginal objects and places are protected, managed	Yes	The site is an existing, heavily disturbed
and respected in accordance with legislative requirements and the wishes of local Aboriginal communities.		parcel of land. The proposed rezoning is minor and limited to existing disturbed and developed land. The rezoning and future subdivision is very unlikely to affect Aboriginal Cultural Heritage and is acceptable.
<u>Action 18.2</u> - Undertake Aboriginal cultural heritage assessments to inform the design of planning and development proposals so that impacts to Aboriginal cultural heritage are minimised and appropriate heritage management mechanisms are identified.	Yes	As above. Given the site context and the nature of the proposal, present very low level risk, it is not considered necessary to undertake an Aboriginal cultural heritage assessment for the site at this stage. If





ENCY COMMENTS
necessary, this could occur after Gateway determination.



NORTH COAST REGIONAL PLAN 2036 GOALS, DIRECTIONS & ACTIONS	CONSISTENCY	COMMENTS	
Direction 20 - Maintain the region's distinctive built character			
<u>Action 20.1</u> - Deliver new high-quality development that protects the distinct character of the North Coast, consistent with the North Coast Urban Design Guidelines (2009)	N/A		
Action 20.2 - Review the North Coast Urban Design Guidelines (2009).	N/A		
Goal 3 - Vibrant and engaged communities Direction 21 - Coordinate local infrastructure delivery	I		
<u>Action 21.1</u> - Undertake detailed infrastructure service planning to support proposals for new major release areas.	N/A		
<u>Action 21.2</u> - Maximise the cost-effective and efficient use of infrastructure by directing development towards existing infrastructure or promoting the co-location of new infrastructure.	Yes	The site is already serviced and situated in a locality the provides the necessary services for its scope.	
Goal 4 - Great housing choice and lifestyle options			
Direction 22 - Deliver greater housing supply			
<u>Action 22.1</u> - Deliver an appropriate supply of residential land within local growth management strategies and local plans to meet the region's projected housing needs.	N/A		
Action 22.2 - Facilitate housing and accommodation options for temporary	N/A		











Table B2 COUNCILS LOCAL STRATEGY AND STRATEGIC PLAN/S CONSISTENCY CHECKLIST

Strategy/Strategic Plan	Relevant component/statement of consistency
The Clarence 2027	The proposal is relevant to the following Community Plan themes and objectives:
	• Infrastructure: To have communities that are well serviced with appropriate infrastructure.
	 The site is already adequately serviced. The proposal is minor in nature and would not put additional pressure on services or infrastructure.
	• Economy: To have an attractive and diverse environment for business, tourism and industry that: Provides land use planning that facilitates and balances economic growth, environmental protection and social equity.
	 The proposal is minor in nature and would not upset the balance of economic growth, environmental protection and social equity.
	• Environment: To preserve and enhance our natural environment and to foster a balance between development and the environment considering climate change impacts.
	 The proposal is minor in nature and would not adversely impact the natural environment nor would it significantly contribute to climate change.
	Overall, the proposal is not inconsistent with The Clarence 2027 and is acceptable when viewed in this context.
Council's Delivery Program and	The proposal is relevant to the following objectives, strategies & activities:
Operational Plan (Note: this changes annually)	Economy:









Clarence Valley Affordable Housing Strategy	Not applicable.
Clarence Valley Council Biodiversity Management Strategy 2010	The proposal is generally consistent with this strategy and would not result in any significant impact to biodiversity. Refer to Section 4.3 of this report and Appendix F (Biodiversity Assessment) for further detail.
Clarence River Way Masterplan 2009	Not applicable.
Clarence Valley Open Spaces Strategic Plan 2012	Not applicable.





Table B3 STATE ENVIRONMENTAL PLANNING POLICY CONSISTENCY CHECKLIST

Name of SEPP	Relevant/ applicable?	Comment/statement of consistency
The following State Environmental Planning Policies (SEPPs) are current acknowledged and some are considered in more detail where relevant.	and whilst not a	all may be applicable to the Clarence Valley LGA they are all being
State Environmental Planning Policy No 1 - Development Standards	No	Not applicable to the CVLEP 2011 or to the planning proposal.
State Environmental Planning Policy No 19 - Bushland in Urban Areas	No	N/A
State Environmental Planning Policy No 21 - Caravan Parks	No	N/A
State Environmental Planning Policy No 33 - Hazardous and Offensive Development	No	N/A
State Environmental Planning Policy No 36 - Manufactured Home Estates	No	N/A
State Environmental Planning Policy (Koala Habitat Protection) 2020	Yes	This Policy applies to rurally zoned land in certain local government areas, including the RU2 Rural Landscape zone within the Clarence Valley local government area. A biodiversity assessment has been undertaken (refer to Appendix F) and includes consideration of this SEPP and Koala Habitat. The assessment confirms there would be no significant impact to Koala habitat or Koalas because of the proposal. The proposal is acceptable and supportable in this context.





Name of SEPP	Relevant/ applicable?	Comment/statement of consistency
State Environmental Planning Policy (Koala Habitat Protection) 2021	No	This Policy does not apply to the subject land as it is situated in the Clarence Valley local government area and is zoned RU2 Rural Landscape.
State Environmental Planning Policy No 47 - Moore Park Showground	No	N/A
State Environmental Planning Policy No 50 - Canal Estate Development	No	N/A
State Environmental Planning Policy No 55 - Remediation of Land	No	Clause 6 of SEPP 55 (relating to rezoning) has been repealed. Nonetheless, in accordance with Section 9.1 Directions, contamination has been investigated and a Phase 1 Preliminary Site Investigation prepared (refer to Appendix E). There is no evidence of contamination that would prohibit the proposal.
State Environmental Planning Policy No 64 - Advertising and Signage	No	N/A
State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development	No	N/A
State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes)	No	N/A
State Environmental Planning Policy (Affordable Rental Housing) 2009	No	N/A
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	No	N/A
State Environmental Planning Policy (Coastal Management) 2018	No	N/A





State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	No	N/A
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004	No	N/A
State Environmental Planning Policy (Infrastructure) 2007	No	N/A
State Environmental Planning Policy (Kosciuszko National Park - Alpine Resorts) 2007	No	N/A
State Environmental Planning Policy (Kurnell Peninsula) 1989	No	N/A
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007	No	N/A
State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007	No	N/A
State Environmental Planning Policy (Penrith Lakes Scheme) 1989	No	N/A
State Environmental Planning Policy (State and Regional Development) 2011	No	N/A
State Environmental Planning Policy (State Significant Precincts) 2005	No	N/A









Appendix C

AHIMS Search Results





AHIMS Web Services (AWS) Search Result

Geolink - Coffs Harbour

Date: 09 February 2021

PO Box 1446 Coffs Harbour New South Wales 2450 Attention: Jacob Sickinger

Email: jsickinger@geolink.net.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 231, DP:DP880455 with a Buffer of 200 meters. conducted by Jacob Sickinger on 09 February 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Appendix D

NSW Heritage Search Results


Search for NSW heritage

Your search did not return any matching results. Please refine your search and try again.

Here you can search the State Heritage Inventory. The State Heritage Inventory is a database of heritage items in New South Wales which includes:

- declared Aboriginal Places
- items listed on the State Heritage Register
- listed Interim Heritage Orders
- items on State Agency Heritage Registers, and,
- items listed of local heritage significance on a local council's Local Environmental Plan.

NSW's maritime heritage, that is not a site listed on the State Heritage Register, is held in a separate database. You can search for shipwrecks, submerged aircraft and other maritime heritage sites in the Maritime Heritage Database.

For more information about Aboriginal Places and other sites of significance refer to Aboriginal Heritage Information Management System.

We work to keep the State Heritage Inventory up to date. We rely on State agencies and local councils to provide updated information when applicable. It's recommended that you check with the relevant State agency or local council for the most up-to-date information.

Basic search criteria

Item name/database ID:

Street name:

Hampton Road

Suburb/town:

Waterview Heights

Local Government Area:

Clarence Valley

Local Aboriginal Land Council (LALC):

Please Choose...

(For Aboriginal Place and State Heritage Register only)

Heritage listings:

Please Choose...

Additional search criteria

NOTE: For items listed by local councils, there may not be information in the additional search criteria fields.

Owner organisation*:

Designer/builder:	
Year of construction:	
from to:	
Item type:	
Please Choose	~
ltem group:	
Please Choose	~
Item category:	
Please Choose	~
Australian historic theme:	
Please Choose	~
NSW historic theme:	
Please Choose	~
Significance, description, historical notes:	

Information complete:

Search R

Search Aboriginal Places & State Heritage Register

The map below shows declared Aboriginal Places and items listed on the State Heritage Register. It does not include listed Interim Heritage Orders, items on State Agency Heritage Registers or Local Environmental Plans.

The location of Aboriginal Places and State Heritage Register items are marked on the map as a single approximation point for general identification and research purposes only.

Location information for some Aboriginal Places (e.g. burial grounds and sacred sites) has been generalised because of their cultural sensitivity. Location information for restricted Aboriginal Places is not shown at all. If a proposed activity or development could potentially impact or harm (i.e. damage, deface or destroy) an Aboriginal Place, the people responsible for the proposed development must undertake a search for the exact boundaries of Aboriginal Places through Aboriginal Heritage Information Management System.

State Heritage Register spatial datasets and associated metadata into a Geographical Information System (GIS) software package is available through Data NSW.

Listing Ty	vpe:		
o All	🔿 Aboriginal Places 👂	🔿 State Heritage Register 🏓	
Local gov	vernment area:		
Clarenc	e Valley		~
ltem nam	ne/Database ID:		
SHR num	iber:		
Location:			
Local Abo	original Land Council (LALC):		

Please Choose...

State theme:

Please Choose...

Item type:

Please Choose	~
ltem Group:	

×

Please Choose...

Item category:



Appendix E

Preliminary Site Contamination Investigation



Phase 1 Preliminary Site Contamination Investigation

Lot 231 DP880455 - Hampton Road, Waterview Heights



PO Box 119 Lennox Head NSW 2478 T 02 6687 7666

PO Box 1446 Coffs Harbour NSW 2450 T 02 6651 7666

> PO Box 1267 Armidale NSW 2350 T 02 6772 0454

PO Box 229 Lismore NSW 2480 T 02 6621 6677

info@geolink.net.au

Prepared for: Joseph McCabe © GeoLINK, 2021



UPR	Description	Date Issued	Issued By
3528-1014	First Issue	26/02/2021	Kale Hardie-Porter

Table of Contents

<u>1.</u>	Intro	oduction	1
	1.1	Summary of the Planning Proposal	1
	1.2	Scope and Objective	1
~	0:44		
<u>2.</u>	Site	identification	3
	<u>2.1</u>	The Site and Locality	3
<u>3.</u>	<u>Site</u>	Characteristics	7
	<u>3.1</u>	Geology	7
	3.2	Topography	
	3.3	Hydrogeology	
	<u>3.4</u>	Acid Sulfate Soils	7
	<u>3.5</u>	Flood Characteristics	7
<u>4.</u>	<u>Site</u>	History	8
	<u>4.1</u>	Aerial Photography	8
	4.2	Regulatory Authorities	13
		4.2.1 Department of the Environment and Energy National Pollutant Inventory	13
		4.2.2 NSW Environment Protection Authority	14
		4.2.3 NSW Department of Primary Industries	14
	4.0	Dravieve Contemination Accomment	4.4
	<u>4.3</u> 4.4	Previous Contamination Assessment Potential Chemicals and Areas of Concern	<u>14</u> 14
	<u>4.4</u>		14
<u>5.</u>	<u>Site</u>	Investigation	15
	<u>5.1</u>	Site inspection	15
	5.2	Waste	15
	5.3	Fill	16
	5.4	Asbestos	16
	5.5	Phytotoxicity	16
	5.6	Odours and Staining	16
	5.7	Incidence and Complaints	17
	5.8	Adjacent Land Uses	17
<u>6.</u>	<u>Con</u>	ceptual Site Model and Potential for Contamination	18
	6.1	Potential migration and exposure pathways	18
	<u>6.2</u>	Potential Receptors	19
	6.3	Source-pathway-receptor linkage	19
<u>7.</u>	Soil	Sampling	21
<u>7.</u>			
	<u>7.1</u>	Sampling Methodology	21
		7.1.1 Sampling Locations	21
		7.1.2 Sampling Method	21
	<u>7.2</u>	Analysis of Samples	22



i

	<u>7.3</u>	Quality Assurance	22
	<u>7.4</u>	Sampling Results	24
<u>8.</u>	<u>Ass</u>	essment	26
	<u>8.1</u>	Assessment Criteria	26
	<u>8.2</u>	Interpretation of Sampling Results	27
	<u>8.3</u>	Implications for the Potential Development of the Site	27
<u>9.</u>	Con	clusion and Recommendations	29
Refe	erence	S	30

Illustrations

Illustration 2.1	Locality Plan	5
Illustration 2.2	The Site	6
Illustration 7.1	Sampling Locations	25

Tables

Table 4.1	Historical Land Uses	8
Table 4.2	Chemicals of Concern	14
<u>Table 6.1</u>	Potentially complete source-pathway-receptor linkages	19
<u>Table 7.1</u>	Summary of QAQC Conformance	23
<u>Table 8.1</u>	Adopted health-based criteria for contamination assessment	26
<u>Table 8.2</u>	Soil Sample Results (mg/kg)	27

Plates

Plate 2.1	Photo looking south-east showing existing house (proposed lot 1)	3
Plate 2.2	Photo looking east towards existing dwellings	3
Plate 2.3	Photo looking north	4
Plate 2.4	Photo looking south-east	4
Plate 5.1	storage shed, located to the north of the dwelling	15
Plate 5.2	Secondary AWTS, no obvious signs of system failure/ leakage	17
Plate 7.1	Samples were collected using a motorised auger and were taken from	the
top 300 mm at each	n of the five sampling points	22

Appendices

Appendix A OEH Contaminated Site Search Results Appendix B NSW DPI Cattle Dip Search Results Appendix C Laboratory Sample Receipt and CoC Appendix D Laboratory Results



1. Introduction

1.1 Summary of the Planning Proposal

GeoLINK has been engaged by Joseph McCabe to prepare a Phase 1 preliminary site contamination investigation as part of a proposed subdivision of land on Hampton Road, Waterview Heights. The site is described as Lot 231 DP880455. The proposal is to amend Clarence Valley Local Environmental Plan 2011 (CVLEP 2011) by amending the Land Zoning Map and the Lot Size Map to rezone a modest portion of the site from RU2 Rural Landscape to R5 Large Lot Residential to allow for the future subdivision of the rezoned land into one 9800 m² large lot residential allotment (that would accommodate an existing dwelling), with the remaining 39.02 ha land parcel to be retained as RU2 Rural Landscape (also accommodating an existing dwelling).

Given that the proposal requires a portion of RU2 Rural Landscape land to subdivide to R5 Large Lot Residential, assessment in accordance with **Section 1.2** of this report is undertaken within the proposed 9800 m² residential lot (the site) whilst also having consideration to the residual lot (Lot 231 DP880455).

Applicable Directions made under Section 9.1 (formerly Section 117) of the *Environmental Planning and Assessment Act 1979* are considered in Planning Proposals. Direction 2.6 - *Remediation of Contaminated Land* - has the objective to: *reduce the risk of harm to human health and the environment by ensuring that contamination and remediation are considered by planning proposal authorities.*

Clause 7 of State Environmental Planning Policy (SEPP) No. 55 requires Council to not give consent to any development on land unless:

- it has considered whether the land is contaminated, and
- if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
- if the land requires remediation to be made suitable for any purpose for which the development is
 proposed to be carried out. It is satisfied that the land will be remediated before the land is used
 for that purpose.

This report has been prepared to support the Planning Proposal and serves to review the potential for contamination in the context of the above requirements and relevant guidelines as outlined below.

1.2 Scope and Objective

The objectives of this preliminary site contamination investigation are to determine the likelihood of contamination from past practices, identify the likely nature of any potential contamination, provide recommendations for further sampling if necessary, and potential options for remediation. The tasks involved in undertaking this assessment are to:

- Identify the land use history of the site, with particular attention to any uses that may have led to
 potential contamination;
- Assess the site condition and surrounding environment to determine any visual signs of contamination, sensitive environments or potential 'hot spots';



1

- Where the site assessment indicates that soil sampling and analyses are warranted:
 - Design a soil sampling pattern for the subject site; and
 - Undertake sampling and analyse individual samples for a range of potential contaminants in relation to the environmental and health investigation levels recommended NSW EPA Contaminated Land Management - *Guidelines for the NSW Site Auditor Scheme, 3rd Edition* (2017) and the NEPC – *Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater* (1999).

This preliminary assessment report is written in accordance with NSW Environment Protection Authority (2011) *Guidelines for Consultants Reporting on Contaminated Sites* and Clarence Valley Council (CVC) *Contaminated Land Policy* (2015).



2. Site identification

2.1 The Site and Locality

Lot 231 DP880455 is located in Waterview Heights which is characterised by rural land and large lot residential (also known as rural residential) subdivisions approximately seven kilometres west of Grafton. Waterview Heights is dissected by the Gwydir Highway with the majority of the large lot residential development on the northern side of the highway and more emerging on the southern side of the highway. The subject site is located south of the Gwydir Highway and fronts Hampton Road which connects to Old Glenn Innes Road, which adjoins the Gwydir Highway. A locality plan of the site is shown as **Illustration 2.1** and an aerial photograph of the site is shown as **Illustration 2.2**. Photographs of the site are shown in **Plate 2.1** to **Plate 2.4**.

The site is currently occupied by two freestanding dwellings. The proponents intend to subdivide the land into two lots, allowing each dwelling to occupy their own individual lot. Proposed Lot 1 in the north-western corner of the existing lot will have a maximum size of 9800 m² and will accommodate one of the existing dwellings. The remaining residual lot (Lot 2) will be 39.02 ha and will accommodate the other existing dwelling. The proposed lot layout is shown in the preliminary plan of subdivision in **Appendix A**.

The site supports areas of cleared land (pasture), vegetated woodland (both regrowth and established), an olive grove and mown yard adjoining the dwelling. The majority of vegetation is concentrated toward the west of the site, with some around the central areas. The site is located adjacent to the existing large lot residential areas to the north and rural (pastoral and forested) land to the east, south and west.



Plate 2.1 Photo looking south-east showing existing house (proposed lot 1)



Plate 2.2 Photo looking east towards existing dwellings





Plate 2.3 Photo looking north

Plate 2.4 Photo looking south-east







Locality Plan - Illustration 2.1

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: KHP Source of base data: OpenStreetMap Date: 18/02/2021

6715000

6714000



6715000







Phase 1 Preliminary Site Contamination Investigation Lot 231 DP880455 - Hampton Road, Waterview Heights 3528-1016

| 488000

The Site - Illustration 2.2

489000 GDA 1994 MGA Zone 56

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: KHP Source of base data: ESRI World Imageryl and O'Donohue Date: 18/02/2021

3. Site Characteristics

3.1 Geology

The *Geological Survey of NSW Grafton 1:250,000 Geological Series Sheet SH 56-6 First Edition* (1976) indicates that the site is located on Kangaroo Creek Sandstone, which is comprised of quartz sandstone and feldspathic quartz sandstone.

3.2 Topography

Topography in the vicinity of the subject site is gently undulating with fall to the east and west. The elevation is approximately 75m AHD (Australian Height Datum).

3.3 Hydrogeology

No surface water is located onsite. Two ephemeral watercourses occur within the residual lot 2, are located to the east of the site and drain to floodplain environments to the east, connecting to Cowans Creek (approximately 2.5 km from Lot 1). Two small isolated dams are also located within lot 2.

A search of the NSW Water website at < https://realtimedata.waternsw.com.au/water.stm > indicates that there are no groundwater bores within 500 m of the subject site.

3.4 Acid Sulfate Soils

According to the Acid Sulfate Soils Map within the Clarence Valley Local Environmental Plan (2011), the site is not located on land likely to contain acid sulfate soils. The nearest mapped acid sulfate soil material is located approximately 1.5 km to the east and is classed as 'low probability of occurrence'. It is noted that the site is located at a minimum elevation of approximately 75 m AHD. The presence of acid sulfate soils is generally limited to elevations of less than 10 m AHD. Further assessment of acid sulfate soils or potential acid soils is considered not warranted.

3.5 Flood Characteristics

The site is not in close proximity to the Clarence River or floodplain and no land on the site is below the 1 in 100 year or extreme flood level of the Clarence River according to the *Lower Clarence River Flood Study Review 2004*.



4. Site History

A review of the site history was undertaken to determine whether current or past activities may have contributed to contamination of the site. The site history was obtained by:

- A review of a selection of historical aerial photographs (requested from NSW Financial Services & Innovation; Spatial Services division), NSW Land and Property Information 'SIX Maps' and Google Earth Satellite images
- A search of NSW Office of Environment and Heritage (OEH) records for contaminated sites (refer to Appendix A)
- A search of Department of Primary Industries (DPI) records of cattle dip sites (refer to Appendix
 B)

There were no previous contamination assessments (relating to the subject site) made available to GeoLINK for review at the time of preparing this report.

4.1 Aerial Photography

A review of a selection of historical aerial photographs was undertaken and included checking of NSW Land and Property Information 'SIX Maps' and Google Earth historical images. A description of the observed changes in the study area images is provided in **Table 4.1**.

No significant changes were observed both on the subject site and the surrounding landscape from 2005 – 2019, with the exception of minor residential development and vegetation removal occurring to the north of the site. The historical aerial photography review indicates a potential for the following land contaminating activities to have occurred on the site:

- Broad-scale agricultural activities livestock grazing.
- Residential development construction of dwelling.

Further assessment of these potential land contaminating activities is considered warranted.

Year	Image Source	Observations
1954 Aerial Photo (NSW Financial	The property largely consists of a mixture of open woodland and cleared areas assumed for stock grazing purposes. There is no other structure or any cropping (or other) activities apparent from the photo.	
1964	Innovation; Spatial Services division) (refer Figure 4.1 to	As per the 1954 image, the property remains unchanged. Portions of Hampton Road can be observed to the north of the subject indicating the beginning of Waterview Heights residential estate.
1 994 4 .	4.4)	The subject site remains largely undisturbed. No structures are located onsite. Increase in residential density is located to the north. A single gravel track traverses through the site – assumed to be used for agricultural purposes. Residential dwellings are present to the north of the site (Wickham Close).

Table 4.1 Historical Land Uses



Year	Image Source	Observations
2005 - 2021	Google Earth imagery (refer to Figure 4.5	The current two dwelling buildings appear in the 2005 image; there are no significant changes to these buildings (or appearance of new buildings) between 2005 and 2021. From 2006 – 2011, a large linear shed located adjacent to the residential dwelling on Lot 1 was constructed, this has since been removed. A small shed is now located within the former footprint of the larger shed structure. This shed (or the existing shed) does not appear to be associated with any potentially contaminating activities other than for domestic used (storage of household goods etc.).

The historical aerial photography review indicates a potential for the following land contaminating activities to have occurred on the site:

 Broad-scale agricultural activities – livestock grazing. It is noted that there was no evidence of cropping activities from the aerial photographs.

Further assessment of this potential land contaminating activity is warranted as undertaken below.





Figure 4.1 Aerial Image of site in 1954 (red polygon represents approximate boundary of Waterview Heights)





Figure 4.2 Aerial Image of site in 1964 (red polygon represents approximate boundary of Waterview Heights)





Figure 4.3 Aerial Image of site in 1994 (red polygon represents approximate locality boundary)





Figure 4.4 Aerial Image of the site in 1994 (red polygon represents approximate locality)



Figure 4.5 Aerial Image of site showing existing dwelling on proposed Lot 1. Image left is from 2006 where a medium size shed is located north of the dwelling. During 2006 to 2011, large portion of the shed has been removed.

4.2 Regulatory Authorities

4.2.1 Department of the Environment and Energy National Pollutant Inventory

A search of the Department of the Environment and Energy National Pollutant Inventory revealed no known sources of emissions of relevant toxic substances in proximity to the site.



4.2.2 **NSW Environment Protection Authority**

A search of the NSW Office of Environment and Heritage records revealed that no notices under the Environmentally Hazardous Chemicals Act (1985) and the Contaminated Land Management Act (maintained under Section 308 of the Protection of the Environment Operations Act 1997) have been issued within the study area or on land adjacent to the study area (refer to Appendix A).

4.2.3 **NSW Department of Primary Industries**

A search of the NSW Department of Primary Industries Cattle Dip Site Locator did not identify any historic cattle dip sites within or adjacent to the site (Appendix B).

4.3 Previous Contamination Assessment

There were no previous contamination assessments made available to GeoLINK for review at the time of preparing this report relating to the subject site.

Potential Chemicals and Areas of Concern 4.4

Based on the desk-top site history assessment, the subject property is likely to have been used for broad scale agriculture. Minor potential for residue contaminants associated with past agricultural practices are possible within Lot 1. On this basis, the primary activities of environmental concern and associated chemicals of potential concern (COPC) are associated with agricultural activities on the land as listed in Table 4.2.

Table 4.2	Chemicals of Concern
-----------	-----------------------------

Potential for contamination	Chemical of Concern
Fuel leakage or spills	Hydrocarbons and metals (e.g. lead)
Cattle grazing activities, including the potential use of pesticides and fertilisers	Pesticides (organo-chlorines and organophosphorus pesticide)
Disposal of wastewaters/bio-solids	Heavy metals, E. coli and faecal coliforms

Industrial/Agricultural chemicals that present a potential contamination risk are those commonly used in the 1940s to 1980s and may have been used within the subject property. These include pesticides, fungicides, herbicides, and fertilisers that contain toxic contaminants such as arsenic pentoxide, lead arsenate, cadmium, mercury organo-chlorines, Dichlorodiphenyltrichloroethane (DDT), dieldrin and organo-phosphates (Schedule 1, NRRC, 2007). Heavy metals from paints, especially lead also have a risk of contamination due to its prevalent use historically.

Some of the potential pollutants persist in the soil while others break down over time. Due to the soil type and geology of the subject site, it is considered that most agricultural chemicals, are likely to be concentrated within the first 150 mm of soil (NSW EPA, 1997). Such pollutants have the potential to be transported off-site with soil during surface flow events. Due to the historical land use at the property, the likelihood of land contamination within the site via the agricultural land use is considered to be low.



5. Site Investigation

5.1 Site inspection

A comprehensive site inspection was undertaken on 28 January 2021, focusing on the site which currently contains a single detached residential dwelling. The purpose of the site inspection was to make observations of the site and adjacent land uses to determine its potential for land contamination from previous land uses and practices. Soil sampling was also conducted on-site (refer to **Section 6**).

5.2 Waste

No significant amounts of waste were identified during the site inspection. A single shed is located approximately 10 m to the north of the residential dwelling and contained miscellaneous goods/ waste products typically associated with large lot dwellings (empty chemical containers, lawn mower and other lawn care products etc. (refer to **Plate 5.1**)). As identified in **Section 4**, this shed is located within the footprint of the larger shed structure which was removed during 2006. No evidence of this structure remains onsite (building pad, materials etc.).



Plate 5.1 storage shed, located to the north of the dwelling



5.3 Fill

There was no visual evidence to suggest the presence of potential filling material on the site based on the detailed site inspection. However, the potential for localised or minor filling cannot be excluded.

5.4 Asbestos

No visible asbestos in surface soils should be present for residential and open space land use, and both the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) and Workplace Health and Safety (WHS) regulations require removal of visible asbestos prior to any work activities that may disturb it.

There was no visual evidence of potential asbestos containing materials observed on the surface of the site. Therefore, a hazardous building material survey is not required to be undertaken.

5.5 Phytotoxicity

There was no visual evidence of phytotoxic impact (i.e. plant stress or dieback) observed on the site. Vegetation on adjoining properties also appeared healthy.

5.6 Odours and Staining

There was no evidence of odours or staining detected on the site. An underground secondary aerated wastewater treatment systems (AWTS) servicing the existing dwelling is located to the north of the dwelling and is adjacent to the shed structure (refer **to Plate 5.2**). It is assumed that the disposal method is subsurface (either in the form of absorption trenches or drippers). No apparent signs of system failure (leakage, saturated soils or odours) were observed during the site inspection.

There is potential for contamination in the form of E. coli and faecal coliforms discharged from the below ground septic tank on-site should system failure occur. However, given that the current system is secondary treated, effluent is treated at a higher grade compared to primary septic system thus reducing health and environmental exposure risk.





Plate 5.2 Secondary AWTS, no obvious signs of system failure/ leakage

5.7 Incidence and Complaints

There was no anecdotal information provided to suggest any incidents had occurred at the site or complaints had been made about the site.

5.8 Adjacent Land Uses

Current land use activities observed adjacent to the site did not suggest a significant potential for offsite land use activities to be affecting the site (in the context of contamination). On this basis, further assessment of potential off-site sources of contamination is not considered warranted.



6. Conceptual Site Model and Potential for Contamination

A Conceptual Site Model (CSM) is a qualitative description of the mechanisms by which potential and/or complete exposure pathways exist between known or potential sources of property impacts, and human or environmental receptors.

In order for a human receptor to be exposed to a chemical contaminant derived from the site, a complete exposure pathway must exist. An exposure pathway describes the course a chemical or physical agent takes from the source to the exposed individual and generally includes the following elements:

- a source and mechanism of chemical release
- a retention or transport medium (or media where chemicals are transferred between media)
- a point of potential human contact with the contaminated media
- an exposure route (e.g. ingestion, dermal absorption, inhalation) at the point of exposure

Where one or more of the above elements is missing, the exposure pathway is considered to be incomplete and there is therefore no direct risk to the receptors. Where this is identified, the exposure pathway does not warrant further assessment. Where a plausible linkage may exist or has the potential to exist, the exposure pathway may be considered further, for example by sampling and a qualitative or quantitative risk assessment.

Based on the site inspection and the information attained and reviewed during this PSI, the following elements of the preliminary CSM have been developed.

6.1 Potential migration and exposure pathways

Identified potential transport mechanisms at the site for the nominated COPCs include:

- direct run-off of COPCs via surface water into adjoining intermittent drainage channels
- vertical seepage of COPCs into the underlying soils and into the local groundwater system
- migration of COPCs through groundwater flow

Potential exposure pathways associated with the sources and COPCs identified are as follows:

- incidental ingestion of soils and/or groundwater during any form of ground penetrating works or groundwater abstraction
- incidental ingestion and dermal contact with surface water on the site
- inhalation of dust derived from soil at the site
- inhalation of vapours on the site during surface and/or intrusive construction works (future maintenance works)
- dermal contact with impacted soils, materials and/or groundwater



6.2 Potential Receptors

The nearest sensitive human receptors identified at the site comprise

- current occupants/ tenants of the site
- adjoining residential land users/ occupants
- future land users

6.3 Source-pathway-receptor linkage

Potentially complete linkages between the identified sources, migration and exposure pathways for the identified COPCs, and potential receptors are summarised below in **Table 6.1**

Table 6.1	Potentially co	mplete source-	pathway-rece	otor linkages

Chemicals of Potential Concern (COPCs)	Exposure pathways	Receptors			
Herbicides and agricultural products					
OCPs, OPPs, arsenic.	 Incidental ingestion and dermal contact with surface and subsurface soil at the site Inhalation of dust derived from soil at the site Incidental ingestion and dermal contact with surface water at the Site, and discharging from the site 	 Current occupants/ visitors to the Site Maintenance workers (intrusive and non- intrusive activities) Adjoining residential land users/ occupants 			
Use of domestic quantities of	chemicals, oils and fuels on site				
Hydrocarbons (BTEX, TPH, PAHs), Lead.	 Incidental ingestion and dermal contact with surface and subsurface soil at the site Inhalation of volatile CoCs derived from soil at the site Incidental ingestion and dermal contact with surface water at the Site, and discharging from the site 	 Current occupants/ visitors to the Site Maintenance workers (intrusive and non- intrusive activities) Adjoining residential land users/ occupants 			
Disposal of wastewaters/bio-se	olids				
E. coli and faecal coliforms	 Incidental ingestion and dermal contact with surface and subsurface soil at the site Incidental ingestion and dermal contact with surface water at the 	 Current occupants/ visitors to the Site Maintenance workers (intrusive and non- intrusive activities) Adjoining residential land users/ occupants 			



Chemicals of Potential Concern (COPCs)	Exposure pathways	Receptors
	Site, and discharging from the site	



7. Soil Sampling

Soil sampling was conducted at the site on 28 January 2021 to assess the presence of chemicals of potential concern as listed previously. Samples were taken primarily around the existing shed and open yards adjacent to the residential dwelling. The following sampling, analysis and data quality objectives have been adopted in order to:

- Confirm the soils on the subject site do not pose a risk to human health or the environment
- Employ quality assurance when sampling, assessing and during evaluation of the soils
- Ensure that decontamination techniques are applied during the sampling procedure and that no cross contamination of samples occurs

7.1 Sampling Methodology

7.1.1 Sampling Locations

In accordance with NSW EPA Guidelines (1995), a combination of systematic and judgemental sampling protocols were used to determine whether any residue contaminants or 'hot spots' are present (particularly within the area of the existing shed and adjacent open areas around the dwelling).

Three (3) composite sampling locations were sampled. Individual sample locations are shown in **Illustration 7.1**.

7.1.2 Sampling Method

Upper soil profile samples were collected using a mortised auger (refer to **Plate 7.1**). Samples were taken from the top 300 mm at each of the three composite sampling locations. The samples were placed in sample bags, sealed and immediately stored in a chilled esky. The sampling procedure utilised in this investigation was in accordance with AS 4482.1 – 2005.





Plate 7.1 Samples were collected using a motorised auger and were taken from the top 300 mm at each of the five sampling points

7.2 Analysis of Samples

The soil samples were analysed for the following contaminants of concern:

- heavy metals
- pesticides (organo-chlorines and organo-phosphates)

Samples were delivered on 28 January 2021 to Environmental Analysis Laboratory (EAL), Lismore via courier.

The sample receipt notification is attached in Appendix C.

7.3 Quality Assurance

All sampling was undertaken using the same quality assurance methodology. Prior to the site inspection, the equipment was thoroughly washed and decontaminated. To ensure there was no cross-contamination during the sampling procedure, the equipment was washed before each soil sample was taken. A chain of custody form, which identified the sample identification code, the collection date and the type of analysis to be undertaken, was completed and despatched with the samples (attached in **Appendix C**).

All samples were sealed and placed in a chilled esky for delivery to the laboratory.

The data validation process is used to assess the representativeness of analytical results and the effects of the sampling program on data quality. The quality assurance and quality control (QA/QC) methods adopted are based on requirements of Standards Australia and NEPM procedures. Data quality is typically discussed in terms of Precision, Accuracy, Representativeness, Comparability and



Completeness. These are referred to as the PARCC parameters. A summary of the conformance of the sampling program is summarised in **Table 7.1**.

Table 7.1 Summary of QAQC Conformance	Table 7.1	Summary of QAQC Conformance
---------------------------------------	-----------	-----------------------------

Within	Comments
Compliance	
Yes	Primary laboratory control spike sample concentrations were within laboratory's acceptable limits
Yes	Matrix spike sample concentrations were within the laboratory's acceptance limits
NA	Surrogate spikes are not part of the method/ report for TRH and Lead.
Yes	Laboratory method blanks were reported within the prescribed limits as set by the laboratory.
Yes	All analysis was undertaken by a NATA accredited laboratory.
•	
Yes	All samples were delivered to the laboratory chilled and with the correct preservative, and all samples were extracted and analysed within the correct holding times.
Yes	The correct number of sample duplicates were taken. See below re sample blanks.
NA	Rinsate samples were not taken. Reusable equipment was thoroughly decontaminated using 'Decon 90' and rinsed between each sample. Cross-contamination of samples is therefore considered unlikely to have impacted the validity of the sampling and assessment process (as per AS4482.1 (2005))
Yes	Refer to the methodology section of this report.
Yes	The same sampling procedures were applied to each sampling event.
Yes	Laboratory LORs were not reported above the adopted assessment criteria in all samples analysed.
Yes	Samples collected by personnel with appropriate qualifications in environmental science or similar.
Yes	The same type of sample preservation and analysis technique was adopted for all
	Compliance Yes Yes NA Yes



Data Quality Indicator	Within Compliance	Comments
All laboratory data reviewed and presented in this report (i.e. COCs, SRNs, COAs and QCRs)	Yes	All laboratory data represented in this report has been reviewed and provided.
All sample results reported	Yes	Refer to appendices at the end of this report.
All laboratory QA/QC data reviewed	Yes	Refer to appendices at the end of this report.
Relative percent differences (RPDs) calculated	Yes	Refer to appendices at the end of this report.
Samples analysed using NATA accredited methods	Yes	All laboratory analysis was undertaken by a laboratory accredited by NATA for the proposed analysis.

7.4 Sampling Results

The analysis results are contained in Appendix D. The results are discussed in the following section.





LEGEND The site Composite sample 1 Residual lot Composite sample 2 \bigcirc Composite sample 3 Adjacent lot

487900

GDA 1994 MGA Zone 56

6714400

6714300

6714400

20 Metres Geo

Phase 1 Preliminary Site Contamination Investigation Lot 231 DP880455 - Hampton Road, Waterview Heights 3528-1017

Sampling Locations - Illustration 6.1

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: KHP Source of base data: ESRI World Imageryl Date: 18/02/2021

Assessment

The laboratory results have been assessed against relevant guideline criteria to determine the following:

- Potential risks to public health and the environment associated with any disturbance of contaminated soils
- The need for further investigation and evaluation if necessary
- Any potential remediation measures that may be required.

8.1 Assessment Criteria

The objective of this assessment is to determine if contamination is present at levels that pose an unacceptable risk to human health and the environment. The acceptable limits of the parameters tested are based on the NSW EPA Contaminated Land Management - Guidelines for the NSW Site Auditor Scheme (3rd edition (2017) and the National Environment Protection Council (NEPC) 1999 -Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater (amended 2013) ('the guidelines').

Table 1A(1) of the guidelines presents Health Investigation Levels for soil contaminants (HILs). HILs are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for specific land-use settings.

Health-based criteria adopted for this investigation are taken from the guidelines and are presented in Table 8.1.

Analyte	Criteria			
Health-based investigation level (mg/kg) for Residential with gardens and accessible soil (home-grown produce contributing < 10 per cent fruit and vegetable intake; no poultry), including children's day-care centres, preschools, primary schools, townhouses, villas				
Arsenic	100			
Cadmium	20			
Chromium (VI)	100			
Copper	7000			
Lead	300			
Manganese	3,800			
Nickel	400			
Zinc	7,400			
Mercury (inorganic)	200			
Beryllium	70			
Boron	5000			
Cobalt	100			

Table 8.1 Adopted health-based criteria for contamination assessment



Phase 1 Preliminary Site Contamination Investigation Lot 231 DP880455 - Hampton Road, Waterview Heights 3528-1014

Analyte	Criteria
Selenium	200
Chlorpyrifos	170
Organo-chlorines (Aldrin and dieldrin)	7
Organo-phosphates (DDT, DDD, DDE)	260

Source: Table 1A(1) and Table 1A(3) of National Environment Protection Council (NEPC) 1999 – Schedule B(1) Guideline on the Investigation Levels for Soil and Groundwater (amended 2013).

8.2 Interpretation of Sampling Results

Analysis results are summarised in **Table 8.2** and can be viewed in full in **Appendix D**. The soil sample results do not exceed any of the relevant health-based or ecological-based investigation level criteria.

8.3 Implications for the Potential Development of the Site

The soil contaminant levels reported from within Lot 1 are considered unlikely to pose a significant risk to human health or the environment.

It is considered that the soil contaminant levels reported are not prohibitive to the proposed development (i.e. subdivision of land/ re-zoning to RU5 for large lot residential).

ANALYTE	Sample 1	Sample 2	Sample 3	'Residential' Guideline Limit
MOISTURE %	13	16	16	-
SILVER (mg/Kg DW)	<1	<1	<1	-
ARSENIC (mg/Kg DW)	8	7	5	100
LEAD (mg/Kg DW)	16	15	14	300
CADMIUM (mg/Kg DW)	<1	<1	<1	20
CHROMIUM (mg/Kg DW)	7	6	7	100
COPPER (mg/Kg DW)	26	25	18	7,000
MANGANESE (mg/Kg DW)	1300	348	253	3,800
NICKEL (mg/Kg DW)	10	5	5	400
SELENIUM (mg/Kg DW)	1	1	1	-
ZINC (mg/Kg DW)	91	50	37	7,400
MERCURY (mg/Kg DW)	<0.05	0.05	<0.05	200

Table 8.2 Soil Sample Results (mg/kg)



Phase 1 Preliminary Site Contamination Investigation Lot 231 DP880455 - Hampton Road, Waterview Heights 27 3528-1014
ANALYTE	Sample 1	Sample 2	Sample 3	'Residential'
	4.70	0.05	0.70	Guideline Limit
IRON (% DW)	4.78	3.35	2.78	-
ALUMINIUM (% DW)	2.20	2.02	1.59	-
BERYLLIUM (mg/Kg DW)	2	1	1	70
BORON (mg/Kg DW)	1	1	<1	5,000
COBALT (mg/Kg DW)	33	13	13	100
PESTICIDE ANALYSIS SCREEN				
DDT+DDE+DDD				260
(mg/Kg)	<0.1	<0.1	<0.1	
Aldrin + Dieldrin (mg/kg)	<0.1	<0.1	<0.1	7
Chlordane				50
(mg/kg)	<0.1	<0.1	<0.1	
Endosulfan (mg/kg)	<0.1	<0.1	<0.1	-
Endrin (mg/kg)	<0.1	<0.1	<0.1	-
Heptachlor (mg/kg)	<0.1	<0.1	<0.1	7
HCB (mg/kg)	<0.1	<0.1	<0.1	-
Methoxychlor (mg/kg)	<0.1	<0.1	<0.1	-
Other Organochlorine Pesticides (mg/Kg)	<0.1	<0.1	<0.1	-
Chlorpyrifos (mg/kg)	<0.1	<0.1	<0.1	-
Other Organophosphate Pesticides (mg/Kg)	<0.1	<0.1	<0.1	-



9. Conclusion and Recommendations

Based on a review of the available desktop data, observations made during the site inspection and sampling and laboratory testing results, it is determined that the soil within the proposed Lot 1 is not subject to contamination by previous land uses and practices. It is considered that the soil contamination status reported is not prohibitive to the proposed development (i.e. subdivision of land/ re-zoning to RU5 for large lot residential). Therefore, no further investigation (detailed site assessment) is required.



References

NEPC (2013) Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater, National Environment Protection Council.

NSW EPA, (2011). *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites.* New South Wales Environment Protection Authority.

NSW EPA (2017) Contaminated Land Management - Guidelines for the NSW Site Auditor Scheme.

NSW Land and Property Information, (2014). *SIX Maps - The Spatial Information eXchange (SIX) portal*, [Online]. Available: <u>http://maps.six.nsw.gov.au/</u>



Copyright and Usage

©GeoLINK, 2021

This document, including associated illustrations and drawings, was prepared for the exclusive use of Joseph McCabe for the purpose of a Development Application for a subdivision of land. It is not to be used for any other purpose or by any other person, corporation or organisation without the prior consent of GeoLINK. GeoLINK accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

This document, including associated illustrations and drawings, may not be reproduced, stored, or transmitted in any form without the prior consent of GeoLINK. This includes extracts of texts or parts of illustrations and drawings.

The information provided on illustrations is for illustrative and communication purposes only. Illustrations are typically a compilation of data supplied by others and created by GeoLINK. Illustrations have been prepared in good faith, but their accuracy and completeness are not guaranteed. There may be errors or omissions in the information presented. In particular, illustrations cannot be relied upon to determine the locations of infrastructure, property boundaries, zone boundaries, etc. To locate these items accurately, advice needs to be obtained from a surveyor or other suitably-qualified professional.



Appendix A

OEH Contaminated Site Search Results



Home Public registers Contaminated land record of notices

Search results

Your search for:LGA: CLARENCE VALLEY COUNCIL

Date from: 01 Jan 1960

Matched 7 notices relating to 2 sites.

			ch Again ne Search
Suburb	Address	Site Name	Notices related to this site
ASHBY	via Clarence STREET	Ashby Dry Dock	1 former
KOOLKHAN	Summerland WAY	Former Koolkhan Power Station	6 former

Page 1 of 1

18 February 2021

For business and industry ^

For local government ^

Contact us

131 555 (tel:131555)

Online (https://yoursay.epa.nsw.gov.au/epa-website-feedback)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Accessibility (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index) Disclaimer (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/disclaimer) Privacy (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/privacy) Copyright (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/copyright)

Find us on

Appendix B

NSW DPI Cattle Dip Search Results





Cattle dip site locator

This search retrieved 0 dip sites. For more information about each dip site, click on the name below.

Dip name	Road	Town/Locality	Council	
Find dip sites				
Dip name				
Road				
Town/Locality		Waterview Heights		
Council		select all 🗸		
		Search		

The information contained in this web page is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Industry& Investment NSW or the user's independent adviser.

https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/health-and-disease/parasitic-and-protozoal-diseases/ticks/cattle-dip-site-locator?sq_content_src=%252BdXJsPWh0dHAIM0EIMkYIMkZidGMuZHBpLm5z... 1/1

Appendix C

Laboratory Sample Receipt and CoC



	Sample Submission Form (SSF) -	Chain of Custody (COC)
Environmental	Submitting Client Details	Billing Client Details
	Quote Id: EALQSILD	□ Tick if same as submitting details
Analysis	Job Ref: 3528	
Laboratory	Company: GOOLINK	Company: Leo EXX
	Contact: Kaip Harde-Port	& Contact: Kim Fuller
	Phone: 0266517666	Phone:
PO Box 157 (Military Road)	Mobile:	Mobile:
LISMORE NSW 2480	Email: Khurdicoste egetis	ABN: Company: Geoterix Contact: Kin Fuller Phone: Mobile: Mobi
T: 02 6620 3678 E: eal@scu.edu.au W: www.scu.edu.au	Postal address:	Postal address:
-		
Payment Method:	Relinquished:	Date: 28/91/2021
Purchase Order	Received:	Date: 1/2
Cheque		/ -
Credit/Debit Card (EAL staff will phone for details)	Preservation: none - f	reezer bricks - ice - acidified - filtered - other
 Invoice (prior approval) 	Condition on receipt: ambien	t 🖯 cool - frozen - other
Please note compositing or mixing of samples MUST be written on the Sam		
In submitting samples, the Client agrees to the EAL Laboratory Services Terms and Conditi	ons. These Terms and Conditions are available on the EA	L website: scu.edu.au/eal, or on request.
comments: standard 7 day tumarund.	Total n	umber Sample Analysis Request
	of san	
italihand and nature of tincardous restorioly		
Likelihood and nature of Hazardous material:		
	Sample	X

Lab ID	Sample ID	Sample Depth	Sampling Date	Sampler	Your Client	Crop ID	Sample Type (e.g. water, leaf, soil)	SS-PA		
	& Composite 1,		28/01/20				Soil			
	2,3									
									<u> </u>	

EAL Sample Submission Form Issue: July 2019

P: +61 2 6620 3678 E: eal@scu.edu.au www.scu.edu.au/eal ABN: 41 995 651 524

Southern Cross University

PO Box 157 Lismore NSW 2480



Sample Receipt Notification (SRN)

Project:	EAL/K2891
Customer:	Geolink Consulting Pty Ltd
Contact:	Kale Hardie Porter
Client Job ID:	3528
No. of Samples	3 x Soil
Date Received:	01 FEB 2021
Comments:	Prioirty 7 day TAT due 10/02/2021

Biller: Geolink Consulting Pty Ltd - Accounts Payable

Test Request

05

Page 1 of 2

		SS-PACK-00	
Sample Text ID	Client Sample ID	Contaminated Site Assessment 1a	
K2891/001	Compostie 1	1	
K2891/002	Composite 2	1	
K2891/003	Composite 3	1	
Total		3	





CRICOS Provider: 01241G



Sample Receipt Notification (SRN)

Southern Cross University PO Box 157 Lismore NSW 2480 P: +61 2 6620 3678 E: eal@scu.edu.au www.scu.edu.au/eal

ABN: 41 995 651 524

for EAL/K2891

Page 2 of 2

Test Descriptions

Test List Item Item Description

SS-PACK-005

Contaminated Site Assessment 1a Dry and Grind Basic Texture Metals (Cu, Pb, Cd, Zn, As, Se, Fe, Mn, Ag, Cr, Ni, Al, Hg, B, Co, Be) Pesticides (OPs, OCs) SUBCONTRACTED



ASPAC NATA

CRICOS Provider: 01241G

Appendix D

Laboratory Results



RESULTS OF SOIL ANALYSIS

PO Box 119 LENNOX HEAD NSW2 21478

3 samples supplied by Geolink Consulting Pty Ltd on 1/02/2021 . Lab Job No. K2891. Samples submitted by Kale Hardie Porter. Your Job: 3528.

ANALYTE	METHOD	Sample 1	Sample 2	Sample 3	RESIDENTIAL A Guideline Limit		Background
	REFERENCE	Compostie 1	Composite 2	Composite 3	Composite - Column A	Individual - Column A	Range
	Job No.	K2891/1	K2891/2	K2891/3	See note 1a	See note 1a	See note 2
TEXTURE (SAND, CLAY, SILT)	** inhouse	Clay	Clay	Clay			
MOISTURE %	** C	13	16	16			
	-						
SILVER (mg/kg DW)	а	<1	<1	<1	na	na	na
ARSENIC (mg/kg DW)	а	8	7	5	25	100	0.2-30
LEAD (mg/kg DW) CADMIUM (mg/kg DW)	a	16 <1	15 <1	14 <1	75 5	300 20	<2-200 0.04-2.0
CROMIUM (mg/kg DW) CHROMIUM (mg/kg DW)	a a	7	6	7	(<25)	(<100)	0.04-2.0
COPPER (mg/kg DW)	a	26	25	18	1,500	6,000	1-190
MANGANESE (mg/kg DW)	а	1300	348	253	950	3,800	4 - 12,600
NICKEL (mg/kg DW)	а	10	5	5	100	400	2-400
SELENIUM (mg/kg DW) ZINC (mg/kg DW)	а	1 91	1 50	1 37	50 1,850	200 7,400	na 2-180
MERCURY (mg/kg DW)	a a	<0.05	0.05	<0.05	1,850	40	0.001-0.1
	a	-0.00	0.03	<0.05	10	40	0.001-0.1
IRON (% DW)	а	4.78	3.35	2.78	na	na	na
ALUMINIUM (% DW)	а	2.20	2.02	1.59	na	na	na
BERYLLIUM (mg/kg DW)	а	2	1	1	15	60	na
BORON (mg/kg DW)	а	1	1	<1	1,125	4,500	na
COBALT (mg/kg DW)	а	33	13	13	25	100	na
PESTICIDE ANALYSIS SCREEN							
Hexachlorobenzene (HCB) (mg/kg)		<0.1	<0.1	<0.1	3	10	<0.1
Alpha BHC (mg/kg)	c c	<0.1	<0.1	<0.1			<0.1
Lindane (mg/kg)	c	<0.1	<0.1	<0.1			<0.1
Heptachlor (mg/kg)	c	<0.1	<0.1	<0.1	2	6	<0.1
Aldrin (mg/kg)	c	<0.1	<0.1	<0.1	2	6	<0.1
Beta BHC (mg/kg)	С	<0.1	<0.1	<0.1			<0.1
Delta BHC (mg/kg)	с	<0.1	<0.1	<0.1			<0.1
Heptachlor epoxide (mg/kg)	С	<0.1	<0.1	<0.1	2	6	<0.1
o,p'-DDE (mg/kg)	С	<0.1	<0.1	<0.1	60	240	<0.1
Alpha Endosulfan (mg/kg)	С	<0.2	<0.2	<0.2			<0.1
Gamma Chlordane (mg/kg)	С	<0.1	<0.1	<0.1	13	50	<0.1
Alpha Chlordane (mg/kg)	с	<0.1	<0.1	<0.1	13	50	<0.1
trans-Nonachlor (mg/kg)	С	<0.1	<0.1	<0.1			<0.1
p,p'-DDE (mg/kg) Dieldrin (mg/kg)	С	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	60 2	240 6	<0.1 <0.1
Endrin (mg/kg)	c c	<0.2	<0.2	<0.2	3	10	<0.1
o,p'-DDD (mg/kg)	c	<0.2	<0.2	<0.1	60	240	<0.1
o,p'-DDT (mg/kg)	c	<0.1	<0.1	<0.1	60	240	<0.1
Beta Endosulfan (mg/kg)	c	<0.2	<0.2	<0.2			<0.1
p,p'-DDD (mg/kg)	с	<0.1	<0.1	<0.1	60	240	<0.1
p,p'-DDT (mg/kg)	с	<0.1	<0.1	<0.1	60	240	<0.1
Endosulfan sulphate (mg/kg)	с	<0.1	<0.1	<0.1	68	270	<0.1
Endrin Aldehyde (mg/kg)	с	<0.1	<0.1	<0.1	3	10	<0.1
Methoxychlor (mg/kg)	С	<0.1	<0.1	<0.1	75	300	<0.1
Endrin Ketone (mg/kg)	с	<0.1	<0.1	<0.1	3	10	<0.1
Isodrin (mg/kg)	С	<0.1	<0.1	<0.1			<0.1
Mirex (mg/kg)	С	<0.1	<0.1	<0.1	3	10	<0.1
Organochlorine Pesticides SUM (mg/kg)	С	<1	<1	<1			<0.1
Dichlorvos (mg/kg)	с	<0.5	<0.5	<0.5			<0.1
Dimethoate (mg/kg)	С	<0.5	<0.5	<0.5			<0.1
Diazinon (Dimpylate) (mg/kg)	с	<0.5	<0.5	<0.5			<0.1
Fenitrothion (mg/kg)	С	<0.2	<0.2	<0.2			<0.1
Malathion (mg/kg)	С	<0.2	<0.2	<0.2			<0.1
Chlorpyrifos (Chlorpyrifos Ethyl) (mg/kg)	c	<0.2	<0.2	<0.2	40	160	<0.1
Parathion-ethyl (Parathion) (mg/kg)	c	<0.2 <0.2	<0.2 <0.2	<0.2 <0.2			<0.1
Bromophos Ethyl (mg/kg) Methidathion (mg/kg)	c c	<0.2	<0.2	<0.2			<0.1 <0.1
Ethion (mg/kg)	c	<0.2	<0.2	<0.2			<0.1
Azinphos-methyl (Guthion) (mg/kg)	c	<0.2	<0.2	<0.2			<0.1
Organophosphate Pesticides SUM (mg/kg)	c	<1.7	<1.7	<1.7			<0.1

METHODS REFERENCE:

a. ^{1:3}Nitric/HCI digest - APHA 3125 ICPMS b. ^{1:3}Nitric/HCI digest - APHA 3120 ICPOES

C Analysis because of SGS report no. SE 216074
 ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available

NOTES:

 NOTES:

 1a. HLL A: Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.</td>

 1b. HLL B: Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.

 1c. HLL C: Y Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and fotopaths. This does not include undeveloped public open space.

 1d. HLL D: X Commercialindustrial, includes premises such as shops, offices, factories and industrial istes.

 (REFERENCE: Health Investigation Guidelines from NEPM (National Environmental Protection, Assessment of Site Contamination, Measure), 2013; Schedule B1).

 2. Environmental Soil Quality Guidelines, Page 40, ANZECO, 1992.

 3a. Table 11 Maximum values of specific contaminant concentrations for dassification without TCLP (NSW EPA 2014, Waste Classification Guidelines Part 1: Classifying Waste)

 3b. Table 2 Maximum values for leachable concentrations and specific contaminant concentrations when used together (NSW EPA 2014, Waste Classification Guidelines Part 1: Classifying Waste)

4. Analysis conducted between sample arrival date and reporting date.

5. ** NATA accreditation does not cover the performance of this service

6... Denotes not requested.

7. This report is not to be reproduced except in full.

8. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).

9. Results relate only to the samples tested. 10. This report was issued on 10/02/2021.

Additional NOTES: DW = Dry Weight. na = no guidelines available





Appendix F

Biodiversity Assessment Report



Biodiversity Assessment

Lot 231 DP880455 Hampton Road Waterview Heights



PO Box 119 Lennox Head NSW 2478 T 02 6687 7666

PO Box 1446 Coffs Harbour NSW 2450 T 02 6651 7666

> PO Box 1267 Armidale NSW 2350 T 02 6772 0454

PO Box 229 Lismore NSW 2480 T 02 6621 6677

info@geolink.net.au

Prepared for: Joseph McCabe © GeoLINK, 2021

Table of Contents

<u>1.</u>	Intro	oduction and Background	1		
	1.1	Introduction	1		
	1.2	The Site			
	<u>1.3</u>	The Proposal			
<u>2.</u>	Met	hodology	5		
—	2.1	Desktop Review	5		
	2.2	Field Assessment			
<u>3.</u>	Veg	etation	6		
	<u>3.1</u>	Desktop Analysis	6		
		3.1.1 Database Search Results	6		
	<u>3.2</u>	Site Features	7		
		3.2.1 Vegetation	7		
		3.2.2 Threatened Flora			
		3.2.3 Threatened Ecological Communities (TECs)			
		<u>3.2.4</u> Condition	7		
<u>4.</u>	<u>Fau</u>	Fauna Habitat			
	<u>4.1</u>	Desktop Analysis	9		
		4.1.1 Database Search Results	9		
	<u>4.2</u>	Previous Studies	10		
		4.2.1 Threatened fauna	10		
	<u>4.3</u>	Koala Analysis	10		
		4.3.1 Local studies	10		
		4.3.2 Clarence Valley Council Koala Register			
		4.3.3 OEH BioNet Records	12		
	<u>4.4</u>	Site Features	13		
		4.4.1 General Habitat Values			
		4.4.2 Recorded Threatened Fauna			
		4.4.3 Koala Assessment			
		4.4.4 Potential for Threatened Species Occurrence	15		
<u>5.</u>	<u>Imp</u>	acts and Mitigation	16		
	<u>5.1</u>	Potential Impacts of the Rezoning	16		
	<u>5.2</u>	Mitigation	10		
<u>6.</u>	Stat	tutory Considerations	17		



6.1	Biodiversity Conservation Act 2016 (BC Act)	17
6.2	Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	17
6.3	State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2021	18
6.4	State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2020	18
6.5	Clarence Valley Council Rural Zones Development Control Plan 2011	20

Illustrations

Illustration 1.1	Locality Plan	3
Illustration 1.2	The Site	4
Illustration 3.1	Biodiversity Constraints Map	8

Tables

<u>Table 3.1</u>	Threatened Flora Records within 5 km of the Site	6
<u>Table 3.2</u>	Threatened Ecological Communities within 5 km of the Site	6
<u>Table 4.1</u>	Threatened Fauna Records within 5 km of the Site	9
<u>Table 4.2</u>	Threatened and Significant Fauna Previously Recorded within the Broader	Study Area10
Table 4.3	Koala habitat types and classification criteria (Biolink, 2018)	11
Table 4.4	Location of SAT Sites	14
Table 4.5	Results of SAT Survey	14

Figures

Figure 4.1	Koala records proximate to site – [red dot indicates site location] (CVC, 2021).	12
Figure 4.2	BioNet Koala records proximate to site – [red dot indicates site location, red triangles	
	indicate Koala record] (BioNet, 2021).	13
Figure 6.1	Assessment process under SEPP Koala Habitat Protection 2020	20

Appendices

Appendix A Preliminary plan of subdivision

Appendix B Database Search Results

Appendix C Photographs

Appendix D Threatened Fauna Potential Occurrence Assessment



Executive Summary

This *Biodiversity Assessment Report* (BAR) has been prepared for the proposed rezoning of Lot 231 DP880455 Hampton Road, Waterview Heights (the site) within the Clarence Valley Local Government Area (LGA). Following preparation and submission of the Planning Proposal to Clarence Valley Council (CVC), a request has been made for additional information with regard to biodiversity and Koala habitat at the site.

The proposal is to amend Clarence Valley Local Environmental Plan 2011 (CVLEP 2011) by amending the Land Zoning Map and the Lot Size Map to rezone a modest portion (9800 m²) of the site from RU2 Rural Landscape to R5 Large Lot Residential to allow for the future subdivision of the rezoned land into a 9800 m² large lot residential allotment (that would accommodate an existing dwelling), with the remaining 39.02 ha land parcel to be retained as RU2 Rural Landscape (also accommodating an existing dwelling). It is understood that at this stage, existing occupancy (i.e. two existing dwellings, fencing and associated infrastructure) is intended to remain unchanged and is the focus of this assessment. While the maximum development potential of the site would also increase (theoretical maximum of two additional dwellings via dual occupancies), this would be subject to further detailed assessment and Council approval if proposed in future. The site supports two dwellings, two sheds and associated water tanks, areas of cleared land (pasture), dry open forest (both regrowth and established), an olive grove and mown yard adjoining the dwellings. Two dams are present in the eastern portion of the site. The site does not contain any areas of land mapped as being of Biodiversity Value (as per the Biodiversity Values Map and Threshold Tool).

An ecological field assessment was undertaken and recorded the following key results:

- No threatened ecological communities (TECs) occur at the site.
- No threatened flora species occur at the site.
- One Rufous Bettong (Aepyprymnus rufescens) (listed as vulnerable under the BC Act) was observed dispersing from grassy understorey during random meander surveys in eastern portion of the site.
- The preferred Koala feed trees Forest Red Gum and Grey Box are common at the site.
- The Koala Spot Assessment Technique survey results indicate that Koalas utilise the site at varying (low to high) levels.
- One hollow-bearing tree (Grey Box, 80cm DBH, with one medium and 3 small limb hollows) occurs within the proposed rezoning alignment on the western boundary. Numerous hollowbearing trees occur more broadly within the site and provide habitat for hollow-obligate fauna such as gliders, microbats and nesting birds.
- No significant habitat for threatened fauna occurs within the development site, which does not
 occur more broadly at the site and locality.

Review of statutory instruments relevant to the proposed rezoning was completed as follows:

Biodiversity Conservation Act 2016 (BC Act): The proposed rezoning and understood intended land use does not require clearing of vegetation or intensification of anthropogenic activity (increase population, fencing, cars), hence habitat for threatened species or communities would not be significantly affected by the proposal. As no vegetation is being removed (thus, below clearing thresholds), the Biodiversity Offsets Scheme (BOS) in the BC Act is not triggered and a Biodiversity Development Assessment Report (BDAR) is not required. Should future intensification of the site be proposed (e.g. additional dwellings), additional biodiversity assessment would be required.



- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act): the proposal is characteristic of declared class action (vii) of the bilateral agreement between the Australian Government and the NSW Government regarding environmental assessment and does not require assessment under part 8 of the EPBC Act.
- State Environmental Planning Policy (SEPP) Koala Habitat Protection 2020 applies to the subject land: core Koala habitat occurs at the site. A Koala Plan of Management (KPoM) would be required as part of any subdivision development application for the site.



1. Introduction and Background

1.1 Introduction

This *Biodiversity Assessment Report* (BAR) has been prepared on behalf of Joseph McCabe for a proposed rezoning of Lot 231 DP880455 Hampton Road, Waterview Heights within the Clarence Valley Local Government Area (LGA).

Following preparation and submission of the Planning Proposal to Clarence Valley Council (CVC), a request has been made for additional information with regard to biodiversity and Koala habitat at the site. On this basis, this assessment has been prepared to:

- Identify the conservation values of the site (particularly habitat for threatened species or communities listed in the *Biodiversity Conservation Act 2016* (BC Act) or *Environment Protection* and *Biodiversity Conservation Act 1999* (EPBC Act).
- Identify any significant trees or fauna habitat features of biodiversity importance.
- Identify Koala habitat at the site.
- Examine the proposal against relevant statutory requirements and identify considerations for future subdivision.

1.2 The Site

The site consists of Lot 231 DP880455 Hampton Road, Waterview Heights (refer to **Illustration 1.1**). The site comprises a rural allotment of ~ 40 ha (refer to **Illustration 1.2**). The property supports two dwellings, two sheds and associated water tanks. Two dams are present in the eastern portion of the site.

The site supports areas of cleared land (pasture), dry open forest (both regrowth and established), an olive grove and mown yard adjoining the dwellings. Most of the vegetation is concentrated toward the west of the site, with some around the central areas. The site is located adjacent to the existing large lot residential areas to the north and rural (pastoral and forested) land to the east, south and west.

Two ephemeral watercourses occur in the east of the site and drain to floodplain environments to the east.

The site is currently zoned RU2 Rural Landscape in the Clarence Valley Local Environmental Plan (LEP) 2011, with a minimum lot size of 40 ha.

The site occurs within the Clarence Lowlands subregion of the South Eastern Queensland Bioregion as per the Interim Biogeographic Regionalisation for Australia (IBRA), Version 7 (refer Thackway & Cresswell, 1995).

1.3 The Proposal

The proposal is to amend Clarence Valley Local Environmental Plan 2011 (CVLEP 2011) by amending the Land Zoning Map and the Lot Size Map to rezone a modest portion of the site (9800 m²) from RU2 Rural Landscape to R5 Large Lot Residential to allow for the future subdivision of the rezoned land into a 9800 m² large lot residential allotment (that would accommodate an existing dwelling), with the remaining 39.02 ha land parcel to be retained as RU2 Rural Landscape (also



1

accommodating an existing dwelling). The proposed minimum lot size of the area to be rezoned is 8000 m^2 .

It is understood, at this stage, that existing occupancy (i.e. two existing dwellings, fencing and associated infrastructure) is intended to remain unchanged and is the focus of this assessment. While the maximum development potential of the site would also slightly increase (theoretical maximum of two additional dwellings as dual occupancies), this would be subject to further detailed assessment and Council approval.

The proposed lot layout is shown in the preliminary plan of subdivision in **Appendix A** and **Illustration 1.2**.





Geo | | | | |

Biodiversity Assessment - Lot 231 DP880455 Hampton Road Waterview Heights 3528-1019

Locality Plan - Illustration 1.1

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: GJM Source of base data: OpenStreetMap Date: 24/02/2021

6715000



LEGEND The site Watercourse Residual lot Adjacent lot

Easement

489000 GDA 1994 MGA Zone 56

150 Metres

The Site - Illustration 1.2

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: GJM Source of base data: ESRI World Imagery Date: 24/02/2021

Biodiversity Assessment - Lot 231 DP880455 Hampton Road Waterview Heights 3528-1020

Geo

2. Methodology

2.1 Desktop Review

The following desktop review was completed prior to field assessment:

- A search of the BioNet Wildlife Atlas (10 km x 10 km grid centred on the Site); completed January 2021.
- A search of the Protected Matters Search Tool (PMST) for Matters of National Environmental Significance (MNES) within a 5 km radius of the Site; completed January 2021.
- Review of the Biodiversity Value mapping (as per the Biodiversity Values Map and Threshold Tool).

Details of the methodology used for field assessment are provided in Section 2.2.

2.2 Field Assessment

Field assessment was completed on 4 February 2021 and included:

- Mapping and identification of vegetation communities.
- Targeted survey for threatened flora (5.5 hours general survey effort).
- Opportunistic survey of all fauna based on visual or aural observations.
- Identification and survey (by GPS) of any hollow-bearing trees and threatened flora (within the proposed rezoning alignment footprint).
- Identification of potential vegetation impacts from the proposed rezoning.
- Completion of 2 Koala survey plots using the Spot Assessment Technique (SAT), as per Phillips & Callaghan (2011).

It primarily focused on the area proposed to be rezoned R5 Large Lot Residential. Given the minor nature of the proposal and intended land use (i.e no vegetation clearing), the scope of assessment is considered adequate. Should vegetation removal be proposed as part of a future subdivision of the site, additional surveys would be required to accompany the development application and associated biodiversity assessment.



3. Vegetation

3.1 Desktop Analysis

3.1.1 Database Search Results

BioNet search results identified records of four threatened flora species (including one species also listed in the EPBC Act) and potential habitat for nine threatened ecological communities (four of which are listed under the EPBC Act) within the search area (refer **Table 3.1** and **Table 3.2**). PMST results identified habitat for 14 threatened flora species and two threatened ecological communities within the search area (refer to **Appendix B**).

Table 3.1 Threatened Flora Records within 5 km of the Site

Scientific name	Common name	BC Act	EPBC Act
Eucalyptus tetrapleura	Square-fruited Ironbark	V	V
Melaleuca irbyana	Weeping Paperbark	E	-
Niemeyera whitei	Rusty Plum, Plum Boxwood	V	-
Prostanthera sejuncta	-	V	-

CE = Critically Endangered; E = Endangered; V = Vulnerable

Table 3.2 Threatened Ecological Communities within 5 km of the Site

	BC Act	EPBC Act
Coastal Cypress Pine Forest in the New South Wales North Coast Bioregion	E	-
Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E	V
Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E	-
Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E	CE
Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions	E	CE
Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion	E	CE
Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion	E	-
Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E	-
Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions	E	-

CE = Critically Endangered; E = Endangered; V = Vulnerable



6

3.2 Site Features

3.2.1 Vegetation

One native vegetation community is present on site (both established and in regrowth stage). The overstorey comprises Spotted Gum (*Corymbia henryi*) and Grey Box (*Eucalyprus molucanna*) interspersed with Grey Ironbark (*Eucalyptus siderophloia*) and Forest Red Gum (*Eucalyptus tereticornis*). Occasional stands of Grey Ironbark occur in isolation as re-growth patches.

The mid-storey is generally sparse or absent with regrowth *Eucalyptus* sp. and *Corymbia* sp. The understorey is a mixture of Couch, *Aristida* sp., Barbed Wire Grass (*Cymbopogon refractus*), Blady Grass (*Imperata cylindrica*), Kangaroo Grass (*Themeda triandra*), Bahia Grass (*Paspalum notatum*), Umbrella Sedge (*Cyperus eragrostis*), Queensland Bluegrass (*Dichanthium sericeum*) and Red Natal Grass (*Melinis repens*).

Exotic species present include Fireweed (*Senecio madagascariensis*), Flaxleaf Fleabane (*Conyza bonariensis*), Broadleaf Paspalum (*Paspalum mandiocanum*), Parramatta Grass (*Sporobolus africanus*), Lantana (*Lantana camara*), Balloon Cotton Bush (*Gomphocarpus physocarpus*) and Wild Tobacco Bush (*Solanum mauritianum*).

This community is characteristic of plant community type (PCT) 1209 *Spotted Gum - Grey Box - Grey Ironbark dry open forest of the Clarence Valley lowlands of the NSW North Coast Bioregion* as per the BioNet Vegetation Classification system.

Areas of pasture are dominated by a mixture of Couch and exotic grasses. Occasional dense patches of Blady Grass occur throughout.

Several mature Broad-leaved Apple (Angophora subvelutina) occur as isolated paddock trees.

A grove of Olive Trees (*Olea* sp.) is located in the centre of the site. The understorey reflects surrounding pasture land.

Managed lawn occurs proximate to the dwellings.

Photographs of vegetation at the site are provided in Appendix C.

Vegetation mapping is provided at **Illustration 3.1**.

3.2.2 Threatened Flora

No threatened flora species were observed during the site inspection.

3.2.3 Threatened Ecological Communities (TECs)

Vegetation on site is not representative of any TECs as listed in the BC Act.

3.2.4 Condition

Established vegetation in the western portion of the site is in moderate condition and includes hollow bearing trees, with an understorey generally dominated by native grasses. The remaining treed vegetation on site is highly degraded and in various stages of regrowth. The majority of the eastern portion of site is highly degraded grassland with pastoral and common agricultural weeds. Large portions of the site have been significantly cleared and modified.



7

6715000



6714000



488000



GDA 1994 MGA Zone 56 489000



150 Metres

Biodiversity Constraints Map - Illustration 3.1

Biodiversity Assessment - Lot 231 DP880455 Hampton Road Waterview Heights 3528-1018

Information shown is for illustrative purposes only Drawn by: AB Checked by: RE Reviewed by: GJM Source of base data: ESRI World Imagery Date: 24/02/2021

4. Fauna Habitat

4.1 Desktop Analysis

4.1.1 Database Search Results

BioNet search results identified records of 42 threatened fauna species listed under the BC Act (including four species also listed in the EPBC Act) within the search area (refer **Table 4.1**). PMST results identified habitat for 42 threatened fauna species and 37 migratory fauna species within the search area (refer to **Appendix D**).

Scientific name	Common name	BC Act	EPBC Act
REPTILES			
Cacophis harriettae	White-crowned Snake	V	-
Coeranoscincus reticulatus	Three-toed Snake-tooth Skink	V	V
Hoplocephalus bitorquatus	Pale-headed Snake	V	-
AVIFAUNA			
Anseranas semipalmata	Magpie Goose	V	-
Artamus cyanopterus cyanopterus	Dusky Woodswallow	V	-
Burhinus grallarius	Bush Stone-curlew	E	-
Calyptorhynchus lathami	Glossy Black-Cockatoo	V	-
Chthonicola sagittata	Speckled Warbler	V	-
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	V	-
Daphoenositta chrysoptera	Varied Sittella	V	-
Ephippiorhynchus asiaticus	Black-necked Stork	E	-
Glossopsitta pusilla	Little Lorikeet	V	-
Haematopus longirostris	Pied Oystercatcher	E	-
Haliaeetus leucogaster	White-bellied Sea-Eagle	V	-
Hieraaetus morphnoides	Little Eagle	V	-
Irediparra gallinacea	Comb-crested Jacana	V	-
Lophoictinia isura	Square-tailed Kite	V	-
Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	V	-
Ninox connivens	Barking Owl	V	-
Ninox strenua	Powerful Owl	V	-
Onychoprion fuscata	Sooty Tern	V	-
Pandion cristatus	Eastern Osprey	V	-
Petroica boodang	Scarlet Robin	V	-
Petroica phoenicea	Flame Robin	V	-
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	V	-
Stagonopleura guttata	Diamond Firetail	V	-
Stictonetta naevosa	Freckled Duck	V	-

Table 4.1 Threatened Fauna Records within 5 km of the Site



Scientific name	Common name	BC Act	EPBC Act
Tyto longimembris	Eastern Grass Owl	V	-
Tyto novaehollandiae	Masked Owl	V	-
MAMMALS			
Aepyprymnus rufescens	Rufous Bettong	V	-
Dasyurus maculatus	Spotted-tailed Quoll	V	E
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	V	-
Miniopterus australis	Little Bent-winged Bat	V	-
Miniopterus orianae oceanensis	Large Bent-winged Bat	V	-
Myotis macropus	Southern Myotis	V	-
Petaurus norfolcensis	Squirrel Glider	V	-
Phascogale tapoatafa	Brush-tailed Phascogale	V	-
Phascolarctos cinereus	Koala	V	V
Planigale maculata	Common Planigale	V	-
Pteropus poliocephalus	Grey-headed Flying-fox	V	V
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	-
Scoteanax rueppellii	Greater Broad-nosed Bat	V	-

CE = Critically Endangered; E = Endangered; V = Vulnerable

4.2 **Previous Studies**

4.2.1 Threatened fauna

Three ecological assessments encompassing land to the west of Hampton Road, approximately 750 metres north-west of the site have been completed by GeoLINK.

Threatened or migratory listed species previously confirmed within the broader study area (GeoLINK, 2011; GeoLINK, 2017 and GeoLINK, 2019) are listed in **Table 4.2**.

Table 4.2	Threatened and Significant Fauna Previously Recorded within the Broader Study
Area	

Scientific Name	Common Name	BC Act	EPBC Act	GeoLINK 2011	GeoLINK 2017	GeoLINK 2019
Merops ornatus	Rainbow Bee-eater	-	Migratory species		✓	-
Miniopterus australis	Little Bentwing-bat	V	-	✓	-	-
Phascolarctos cinereus	Koala	V	V	√	✓	√
Pteropus poliocephalus	Grey-headed Flying-fox	V	V	✓	-	-

4.3 Koala Analysis

4.3.1 Local studies

A study undertaken by Biolink (2018) reviewed historic Koala records and undertook field surveys to further investigate aspects of Koala distribution and abundance across the Southern Clarence Area of Regional Koala Significance: 1952 - 2017 (SCARKS). Key findings from the report included:



- Waterview Heights is identified as one of four local source Koala populations.
- Waterview Heights (in combination with a requirement for an appropriate area of supporting habitat) is considered a key local Koala population hub.
- Waterview heights has the highest rates of mortality from vehicles and domestic dog attacks.

The SCARKS identified Preferred Koala Food Trees (PKFT) as follows:

- Forest Red Gum (*Eucalyptus tereticornis*)
- Grey Gum (Eucalyptus propinqua)
- Grey Box (*Eucalyptus moluccana*)
- Tallowwood (*Eucalyptus microcorys*)
- Swamp Mahogany (*Eucalyptus robusta*).

A four-tiered hierarchical Koala habitat classification was assigned to forest ecosystems mapped within the SCARKS based on the dominance of PKFTS and soil nutrient value. Koala habitat types and classification used in the SCARKS are displayed in **Table 4.3**.

Vegetation at the site is not mapped in the SCARKS, however vegetation immediately south-west of the site is mapped as Koala Habitat Secondary (Class C). Secondary (Class C) habitat is identified as sustaining low density populations of approximately 0.05 Koalas/ha.

Koala habitat type	Classification criteria
Primary Koala habitat	Forest and/or woodland communities, groups or types occurring on soils of medium to high nutrient value whereupon primary 4 PKFTs are dominant or co- dominant components of the tallest stratum species.
Secondary (Class A) Koala habitat	Forest and/or woodland communities, groups or types occurring on soils of medium to high nutrient value whereupon primary PKFTs are subdominant components of the tallest stratum species.
Secondary (Class B) Koala habitat	Forest and/or woodland communities, groups or types occurring on soils of low to medium nutrient value whereupon primary PKFTs are absent, the tallest stratum instead dominated or co-dominated by secondary food tree species only.
Secondary (Class C) / marginal Koala habitat	Forest and/or woodland communities, groups or types occurring on soils of low to medium nutrient value whereupon primary food tree species are absent and secondary food tree species are sub-dominant components of the tallest stratum species
Other	Forest and/or woodland communities not containing PKFTs
Unknown	Vegetation not currently mapped or described.

Table 4.3 Koala habitat types and classification criteria (Biolink, 2018)

The SCARKS identified Waterview Heights as the highest (immediate) priority for management and recommended a hub-focused Koala Plan of Management (KPoM) or Koala Management Strategy (KMS). The following general guidelines were listed for inclusion in the KPoM / KMS to assist long-term, sustainable Koala management of the Waterview Heights hub:

- A comprehensive field meta-population assessment to determine the full hub extent, and where resident aggregations are located;
- Ensuring that adequate linkages and habitat areas are maintained to assist ongoing processes of recruitment and dispersal;
- A concept of no net reduction in the area of native vegetation cover within the hub, which will require a hub-focussed offset strategy to compensate for the loss of areas of preferred Koala habitat to any future development;



- Increasing the overall carrying capacity of habitat / linkage areas in the hub by way of enrichment planting with PKFTs, and
- In the absence of a Koala-friendly development strategy, that development precincts be segregated from Koala habitat areas and linkages by way of effective use of wildlife management infrastructure such as exclusion fencing, Koala-grids and underpasses.

4.3.2 Clarence Valley Council Koala Register

Review of the Clarence Valley Koala Register (CVC, 2021) revealed six Koala observations immediately south of site, a further 13 observations further south and multiple observations proximate to Hampton Road, north of site (refer **Figure 4.1**).



Figure 4.1 Koala records proximate to site – [red dot indicates site location] (CVC, 2021).

4.3.3 OEH BioNet Records

Four hundred general Koala records (BioNet, 2021) are located within 10 km of the site (refer **Figure 4.2**).





Figure 4.2 BioNet Koala records proximate to site – [red dot indicates site location, red triangles indicate Koala record] (BioNet, 2021).

4.4 Site Features

4.4.1 General Habitat Values

While the site is significantly modified and cleared, native vegetation provides a range of habitat within dry open forest and grassland. The dam areas provide habitat for a range of common frogs and waterfowl.

The site does not occur within a mapped wildlife corridor as per Scotts (2003), however connectivity to areas of adjacent dry open forest to the north and south provides linkages for arboreal mammals such as possums (ringtail, brushtail) and gliders (sugar, feathertail, squirrel). A range of microchiropteran bats are likely to utilise the site for foraging, with flying-foxes likely to forage on flowering *Eucalyptus*



sp. and *Corymbia* sp. Eastern Grey Kangaroos utilise the site, and other ground-dwelling mammals may include species such as bandicoots and other macropods (Red-necked Wallaby).

One hollow-bearing tree (Grey Box, 80cm DBH, with one medium and 3 small limb hollows) occurs within the proposed rezoning area on the western boundary (E 487819, N: 6714290) (refer to **Illustration 3.1**). Numerous hollow-bearing trees occur more broadly within the remainder of the site and provide habitat for hollow-obligate fauna such as gliders, microbats and nesting birds.

The preferred Koala feed trees Forest Red Gum and Grey Box are common within the site (a detailed Koala assessment is provided in **Section 6.1**).

4.4.2 Recorded Threatened Fauna

One Rufous Bettong (*Aepyprymnus rufescens*) (listed as vulnerable under the BC Act) was observed dispersing from grassy understorey during random meander surveys in eastern portion of the site (E: 488571, N: 6714326) (refer to **Illustration 3.1**).

4.4.3 Koala Assessment

Koala surveys were undertaken using the SAT assessment technique (Phillips and Callaghan 2011), this included a visual inspection of the tree canopy and a cursory inspection of the undisturbed ground surface within a distance of 100 centimetres around the base of each tree. Locations of SAT sites are displayed in **Illustration 3.1** and **Table 4.4** below.

Table 4.4	Location	of SAT Sites
-----------	----------	--------------

SAT#	PCT	Easting	Northing
1	1209	487841	6714299
2	1209	488025	6714222

The survey returned signs of Koala activity (i.e. faecal pellets) at both sites (refer to **Table 4.5**). Koala Activity Categories were determined as per Phillips & Callaghan (2011) for the East Coast (medium-high) activity category as follows:

- Low use: <22.52%
- Medium (normal) use: ≥ 22.52 but ≤ 32.84%
- High use: > 32.84%.

Table 4.5Results of SAT Survey

SAT	No. Trees Searched	No. Trees w Faecal Pellets	Activity Level*	Activity Category
1	30	4	13.3	Low*
2	30	13	43.3	High**

*Survey limitations included areas of dense groundcover/grass inhibiting observation of faecal pellets. **SAT 2 contained a dense localised occurrence (comparable to the remainder of the site) of the preferred Koala feed tree Forest Red Gum.

The survey results indicate Koalas utilise the site at low levels (SAT 1) and high levels (SAT 2). Scats were recorded under Forest Red Gum (10 trees), Grey Box (three trees) and Large-leaved Spotted Gum (two trees). No Koalas were observed during SAT surveys.



4.4.4 Potential for Threatened Species Occurrence

A threatened fauna potential occurrence assessment considered the potential for locally recorded threatened fauna species to occur on site. Evidence of two threatened fauna species (Rufous Bettong observation and Koala scats) were confirmed on site. An additional 24 threatened fauna species are considered potential occurrences on site:

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Bush Stone-curlew (Burhinus grallarius)
- Speckled Warbler (*Chthonicola sagittate*)
- Brown Treecreeper (*Climacteris picumnus*)
- Varied Sittella (Daphoenositta chrysoptera)
- Little Lorikeet (Glossopsitta pusilla)
- Little Eagle (*Hieraaetus morphnoides*)
- Square-tailed Kite (Lophoictinia isura)
- Black-chinned Honeyeater (eastern subspecies) (Melithreptus gularis gularis)
- Barking Owl (*Ninox connivens*)
- Powerful Owl (Ninox strenua)
- Scarlet Robin (Petroica boodang)
- Grey-crowned Babbler (Pomatostomus temporalis temporalis)
- Diamond Firetail (Stagonopleura guttata)
- Masked Owl (Tyto novaehollandiae)
- Hoary Wattled Bat (Chalinolobus nigrogriseus)
- Eastern Coastal Free-tailed Bat (Micronomus norfolcensis)
- Little Bent-winged Bat (*Miniopterus australis*)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Squirrel Glider (*Petaurus norfolcensis*)
- Brush-tailed Phascogale (*Phascogale tapoatafa*)
- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Yellow-bellied Sheathtail-bat (Saccolaimus flaviventris)
- Greater Broad-nosed Bat (Scoteanax rueppellii).



5. Impacts and Mitigation

5.1 Potential Impacts of the Rezoning

Existing residences and fencing between each proposed lot is present along the proposed rezoning delineation, hence no vegetation removal is required for the proposal. Based on the intended land use (i.e. no intensification) and field assessment results, biodiversity impacts of the proposal are negligible, particularly with the retention of woody vegetation within the site.

As there is no proposed net increase in traffic or residents:

- Disturbance to fauna during ongoing occupation (above levels currently occurring) is not anticipated.
- Intensification of potential disturbance/modification to areas of retained native vegetation is not anticipated.

Should intensification of development be proposed in the future (e.g. dual occupancy residences, where permissible), this would be subject to further detailed assessment and Council approval as part of any future development application(s).

5.2 Mitigation

No vegetation or construction works are required for the proposal hence no mitigation measures are prescribed. Mitigation measures however would apply should intensification of development be proposed in the future (e.g. additional residences), which would be identified in the development application and/or Council consent conditions.


6. Statutory Considerations

The following sections examine the findings of the field assessment with regard to relevant statutory requirements which require consideration for the development application.

6.1 Biodiversity Conservation Act 2016 (BC Act)

The site does not contain any areas of land mapped as being of Biodiversity Value (as per the Biodiversity Values Map and Threshold Tool; accessed 20/01/2021). The following clearing thresholds would apply:

- 1 ha (based on a minimum lot size of 40 ha as per the Clarence LEP 2011) applies to RU2 Rural Landscape zoned land.
- 0.25 ha (based on a minimum lot size of less than 1 ha) would apply to R5 Large Lot Residential zoned land.

It is understood that the intended subdivision would formalise the rezoning so existing residences are on separate lots and existing fencing is present along the proposed rezoning delineation. No native vegetation removal would be required. This proposal scenario will not exceed the clearing threshold, therefore the Biodiversity Offsets Scheme (BOS) is not triggered and a Biodiversity Development Assessment Report (BDAR) is not required to accompany the rezoning.

The BC Act requires a test of significance ('five-part test') when assessing whether an action, development or activity is likely to significantly affect threatened species, ecological communities or their habitats. As no vegetation clearing and intensification is proposal, threatened species and their habitat would not be impacted (refer to **Appendix D**). On this basis, development of the site (as proposed) would not require a BDAR.

Should intensification development be proposed in the future (e.g. additional residences, this would be subject to further detailed biodiversity assessment and Council approval. The appropriate assessment pathway would need to be identified.

6.2 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance (MNES) require approval from the Australian Government Minister for the Environment (the Minister). On 24 March 2020 the Australian Government entered into a new agreement ('Amending Agreement No. 1') with the New South Wales Government to amend the bilateral agreement signed in 2015 relating to environmental assessment. The Amending Agreement declares that an action does not require assessment under part 8 of the EPBC Act if it is listed in the declared classes of actions in Schedule 1 of the Amending Agreement.

In accordance with declared class of action (vii), the current proposal and intended use is not classified as State significant development or complying development or designated development and is assessed as development that can be carried out with development consent under Part 4 of the EP&A Act, and does not include a species impact statement prepared in accordance with the BC Act or FM Act.



The proposal is characteristic of declared class action (vii) and hence does not require assessment under part 8 of the EPBC Act.

6.3 State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2021

State Environmental Planning Policy (Koala Habitat Protection) 2021 commenced on 17 March 2021. The Koala SEPP 2021 reinstates the policy framework of SEPP Koala Habitat Protection 2019 to 83 Local Government Areas (LGA) in NSW. At this stage:

- In nine of these LGAs Metropolitan Sydney (Blue Mountains, Campbelltown, Hawkesbury, Ku-Ring-Gai, Liverpool, Northern Beaches, Hornsby, Wollondilly) and the Central Coast LGA – Koala SEPP 2021 applies to all zones.
- In all other identified LGAs, Koala SEPP 2021 does not apply to land zoned RU1 Primary Production, RU2 Rural Landscape or RU3 Forestry.

The subject site is zoned RU2 under the Clarence Valley Local Environment Plan 2011, therefore Koala SEPP 2021 does not apply.

For all RU1, RU2 and RU3 zoned land outside of the Sydney Metropolitan Area and the Central Coast, Koala SEPP 2020 continues to apply. This is an interim measure while new land management and private native forestry codes are developed. The Koala SEPP 2020 replicates the objectives and provisions of SEPP 44, which was in force from 1995 through to 2019.

6.4 State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2020

State Environmental Planning Policy (Koala Habitat Protection) 2020 ('Koala SEPP 2020') commenced 30 November 2020 to replace and repeal the State Environmental Planning Policy (Koala Habitat protection) 2019 (2019 Koala SEPP). The Koala SEPP 2020 replicates the objectives and provisions of SEPP 44, which was in force from 1995 through to 2019. The SEPP:

- Provides a framework for councils to prepare a strategic Koala plan of management that would apply to the whole or part of a local government area.
- Applies to development applications on land over one hectare in a relevant LGA.
- Requires development applications to be consistent with a council strategic Koala plan of management that applies to the land, or, if there is no strategic plan, sets out a two-step process to determine if the land is core Koala habitat and if it is, produce an Individual Koala Plan of Management before council can grant consent to a development application.
- Exempts clearing of vegetation from the application of the SEPP if the purpose of the clearing is to maintain an Asset Protection Zone as part of rebuilding a dwelling destroyed or damaged by bushfire and allows the dwelling to be sited anywhere on the lot.
- Saves all Koala Plans of Management approved under SEPP 44 and 2019 Koala SEPP.

Circular B35 (Department of Urban Affairs and Planning, 1995) underpins the Policy and sets out the framework for Koala assessments over several steps as indicated in **Figure 6.1** (overleaf).

Based on Figure 6.1, the following assessment has been completed:



Does the Policy apply?

Yes; Clarence Valley Council is listed in Schedule 1 of the Koala SEPP 2020 and the site is > 1 ha in area.

Is the Land Potential Koala Habitat?

The Koala SEPP 2020 defines potential Koala habitat as "areas of native vegetation where Schedule 2 trees constitute at least 15% of the total number of trees in the upper or lower strata of the tree component".

Yes; localised occurrences of the Schedule 2 tree species Forest Red Gum occur throughout established vegetation in the western portion of the site and comprises \geq 15% of the total number of trees in the upper or lower strata of the tree component.

Does the site contain core Koala habitat?

The Policy defines core Koala habitat as "an area of land with a resident population of Koalas, evidenced by attributes such as breeding females, being females with young, and recent sightings of and historical records of a population". It is noted that SEPP 44 does not distinguish between a site that contains all of a population, or part of it. However core Koala habitat must be considered to include all areas of habitat required to meet a Koala population's needs i.e. foraging habitat, refugia and habitat linkages.

The recent site assessment numerous Koala scats under assessed trees. These results are consistent with previous assessments in the locality (GeoLINK 2011, 2017 and 2019). Waterview Heights is recognised as a key local Koala population hub, being a high (immediate) priority for management (Biolink 2018). Clarence Valley Council's online mapping and the BioNet atlas also indicate numerous Koala records in the locality (refer to **Section 4.3**).

The habitat/resources at the site provide resources for Koalas and are being utilised for forage and shelter. In a purely spatial sense an estimate of the capacity of the site to support Koala populations was calculated as follows:

Total area of PCT 1209 on site (13.92 ha) x habitat population density estimate (0.05 Koalas/ha) (Biolink, 2018) = Koala population estimate of 0.696. On this basis the site can support 0.7 animals.

On a more macro scale, it is evident that the locality supports a resident Koala population. This could be considered '*an area of land with a resident population of Koalas*', of which the site is part. On this basis the site forms part of a Koala population.

Overall, core Koala habitat occurs at the site and a Koala Plan of Management (KPoM) is required to accompany any development on the site.





Figure 6.1 Assessment process under SEPP Koala Habitat Protection 2020

6.5 Clarence Valley Council Rural Zones Development Control Plan 2011

The Clarence Valley Council Rural Zones Development Control Plan (RZDCP) has not been addressed as part of this report as the proposal is not a development application, rather it is a rezoning (Planning Proposal).



Should a development application be proposed in the future this would be subject to further assessment against Part R of the RZDCP. Part R includes various prescriptions for the site. It relates to controls for biodiversity and habitat protection and details biodiversity thresholds that a development must comply with.



References

Biolink (2018). Southern Clarence ARKS: Aspects of the distribution and abundance of Koalas 1952 – 2017. Final report prepared for Clarence Valley Council. Biolink Ecological Consultants, Uki, NSW.

Clarence Valley Council (undated). *Koalas in the Clarence Valley*. [Online]. Available (https://www.clarenceconversations.com.au/Koalaregister. [Accessed February 2021].

Department of Agriculture, Water and Environment (Cth) [DAWE] (2021). Protected Matters Search Tool: [Accessed20/01/2021].

Department of Planning, Industry and Environment (NSW) [DPIE] (2021). *NSW BioNet Database Search Tool.* [Accessed 20/01/2021].

Department of Urban Affairs and Planning (1995). *Circular No. B35 State Environmental Planning Policy No. 44 – Koala Habitat Protection.* Department of Urban Affairs and Planning, Sydney.

GeoLINK (2011). Flora and Fauna Survey and Impact Assessment. Proposed Subdivision of Lot 2411 DP 709698 and Lot 9 DP 820604, Waterview Heights. Unpublished report prepared for Bothamley & O'Donohue Pty Ltd.

GeoLINK (2017). *Biodiversity Assessment. Lot 54 DP1236214 Hampton Road Waterview Heights - Residential Subdivision.* Unpublished report prepared for Waterview Heights Developments Pty Ltd.

GeoLINK (2019). Revised Ecological Assessment. 41 Lot Subdivision of Lots 4-5, DP 1179232 Hampton Road, Waterview Heights. Unpublished report prepared for Waterview Heights Developments Pty Ltd

Phillips, S. & Callaghan, J. (2011). The Spot Assessment Technique: a tool for determining localised levels of habitat use by Koalas *Phascolarctos cinereus*. *Australian Zoologist*: 2011, Vol. 35, No. 3, pp. 774-780.

Scotts, D. (2003). Key Habitats and Corridors for Forest Fauna. Occasional Paper 32. NSW NPWS.



Copyright and Usage

©GeoLINK, 2021

This document, including associated illustrations and drawings, was prepared for the exclusive use of Joseph McCabe. It is not to be used for any other purpose or by any other person, corporation or organisation without the prior consent of GeoLINK. GeoLINK accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

This document, including associated illustrations and drawings, may not be reproduced, stored, or transmitted in any form without the prior consent of GeoLINK. This includes extracts of texts or parts of illustrations and drawings.

The information provided on illustrations is for illustrative and communication purposes only. Illustrations are typically a compilation of data supplied by others and created by GeoLINK. Illustrations have been prepared in good faith, but their accuracy and completeness are not guaranteed. There may be errors or omissions in the information presented. In particular, illustrations cannot be relied upon to determine the locations of infrastructure, property boundaries, zone boundaries, etc. To locate these items accurately, advice needs to be obtained from a surveyor or other suitably qualified professional.



Appendix A

Preliminary plan of subdivision





Appendix B

Database Search Results



Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Threatened (listed on BC Act 2016) Animals in selected area [North: -29.65 West: 152.83 East: 152.93 South: -29.75] returned a total of 1,769 records of 42 species. Report generated on 20/01/2021 11:08 AM

Animalia Aves Accipitidae 0230 <i>M-lopholitinia isura Square-lailed Kite</i> V.P.3 51 Animalia Aves Burhindia 0174 <i>Menation cristatus</i> Burhinus grainatus Animalia Aves Burhindia 0130 <i>Heematopus longivostris</i> Casta Combo-Carlow E1,P 3 Animalia Aves Jacanidae 0171 <i>recipare gellinacee</i> Combo-Crested Jacana V.P 90 Sonthalia Aves Lariate 0120 Onychoprion Inseata Animalia Aves Cacatuldae 0265 <i>Calypotrynchus latarani</i> Animalia Aves Strajidae 0260 Glossopitta pusilia Animalia Aves Strajidae 0260 Glossopitta pusilia Animalia Aves Strajidae 0248 <i>Minox stenua Minox stenua M</i>	Animalia Aves Jacanidae 010 Plead National Strate Plead Dysterce E1,P 3 Animalia Aves Jacanidae 0111 Iredipara galinacee Comb-crested Jacana V,P 90 Animalia Aves Jacanidae 0120 Onychopino fusceta Comb-crested Jacana V,P 90 Animalia Aves Patidade 0120 Onychopino fusceta Comb-crested Jacana V,P 3 Animalia Aves Patidade 0260 Glossopsita pusilia Little Lorikete V,P 38 Mimalia Aves Strigidae 0246 Minox strenue Powerful Owl V,P,3 1 Nimalia Aves Tytonidae 0250 MTyto novaehollandiae 90 Masked Owl V,P,3 2 Animalia Aves Chanthizidae 0504 Chinocical signifata 90 Strigidae 24 MTyto novaehollandiae 90 90 74 subspecies V,P 21 Animalia Aves Pontostomida 8328 Pomatostomus 90 Stredecode <td< th=""><th>ngdom</th><th>Class</th><th>Family</th><th>Species Code</th><th>Scientific Name</th><th>Exo</th><th>Common Name</th><th>NSW status</th><th>Comm. status</th><th>Record s</th><th>Info</th></td<>	ngdom	Class	Family	Species Code	Scientific Name	Exo	Common Name	NSW status	Comm. status	Record s	Info
Animalia Aves Jacanidae 0130 Prelematopologisms Pred Oystercettacher E1,P 3 Animalia Aves Jacanidae 0171 Irrelipara galinacea Comb-crested Jacana V,P 90 Animalia Aves Lariade 0120 Onzychopon Niscata Comb-crested Jacana V,P 90 Animalia Aves Cacatuldae 0250 "Glosspillar pusilla" Glosspilla-Cockatoo V,P,2 1 Inimalia Aves Strigidae 0246 "Minox sterua Glosspilla-Cockatoo V,P,3 1 Inimalia Aves Strigidae 0248 "Minox sterua For ontrescreeper (eastern V,P,3 2 Inimalia Aves Tytonidae 0250 "Tyto novaeholandiae For ontrescreeper (eastern V,P 21 Inimalia Aves Melphagidae 8303 Melitreptus gularis gularis </td <td>Animalia Aves Jacanidae 01:0 Predentopus longrostris Pied Oysterch E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omychopino fuscata V.P 3 Animalia Aves Destination Cacatuidae 02:05 "Calyptorfhynchus Italiami Animalia Aves Strigidae 02:00 Giosso giatra pusille Little Lonkeet V.P 38 Animalia Aves Strigidae 02:00 Minox strenua Minox strenua Minox strenua V.P.3 1 Inimalia Aves Tytoinoidae 02:00 Miryto novaeholandiae Biack-chinadia V.P.3 2 Inimalia Aves Clanacteridae 8127 Clanacteridae Rispecklet Warbler V.P 2 Inimalia Aves Pornatostomus galaris Giosy Biack-chinae V.P 10 Inimalia Aves Pertoicidae 038 Pomatostomus <</td> <td>malia</td> <td>Reptilia</td> <td>Scincidae</td> <td>2293</td> <td></td> <td>9 19 1</td> <td>Three-toed Snake-tooth Skink</td> <td>V,P</td> <td>V</td> <td>1</td> <td></td>	Animalia Aves Jacanidae 01:0 Predentopus longrostris Pied Oysterch E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omychopino fuscata V.P 3 Animalia Aves Destination Cacatuidae 02:05 "Calyptorfhynchus Italiami Animalia Aves Strigidae 02:00 Giosso giatra pusille Little Lonkeet V.P 38 Animalia Aves Strigidae 02:00 Minox strenua Minox strenua Minox strenua V.P.3 1 Inimalia Aves Tytoinoidae 02:00 Miryto novaeholandiae Biack-chinadia V.P.3 2 Inimalia Aves Clanacteridae 8127 Clanacteridae Rispecklet Warbler V.P 2 Inimalia Aves Pornatostomus galaris Giosy Biack-chinae V.P 10 Inimalia Aves Pertoicidae 038 Pomatostomus <	malia	Reptilia	Scincidae	2293		9 19 1	Three-toed Snake-tooth Skink	V,P	V	1	
Animalia Aves Jacanidae 01:0 Predematopsoid Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omexhon Ilscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omexhon Ilscata V,P 3 Animalia Aves Cacatuldae 02:05 Calaptorthynchus Illite Glossy Black-Cockatoo V,P,2 1 Animalia Aves Strigidae 02:06 Glossopsita pusilia Ultite Lonkeet V,P 38 Animalia Aves Strigidae 02:46 Minox sterua Strigidae 02:46 Minox sterua Strigidae 02:0 Minox sterua Strigidae </td <td>Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1</td> <td>malia</td> <td>Reptilia</td> <td>Elapidae</td> <td>2645</td> <td></td> <td></td> <td>White-crowned Snake</td> <td>V.P</td> <td></td> <td>1</td> <td></td>	Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1	malia	Reptilia	Elapidae	2645			White-crowned Snake	V.P		1	
Animalia Aves Jacanidae 01:0 Predematopologisms Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediperar galinacea Omychopol nuscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediperar galinacea Omychopol nuscata V,P 3 Animalia Aves Cacatuldae 02:5 ^Calptorthynchus Glossy Black-Cockatoo V,P.2 1 Animalia Aves Strigidae 02:60 Glossopsita pusilia Utilite Lorikeet V,P.3 1 Animalia Aves Strigidae 02:46 Minox stenua Strigidae 02:46 Minox stenua Strigidae 02:5 Minox stenua Strigidae <t< td=""><td>Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna</td><td></td><td></td><td></td><td></td><td>Hoplocephalus</td><td>9</td><td></td><td></td><td></td><td>1</td><td></td></t<>	Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna					Hoplocephalus	9				1	
Animalia Aves Jacanidae 01:0 Predematopsoid Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omexhon Ilscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omexhon Ilscata V,P 3 Animalia Aves Cacatuldae 02:05 Calaptorthynchus Illite Glossy Black-Cockatoo V,P,2 1 Animalia Aves Strigidae 02:06 Glossopsita pusilia Ultite Lonkeet V,P 38 Animalia Aves Strigidae 02:46 Minox sterua Strigidae 02:46 Minox sterua Strigidae 02:0 Minox sterua Strigidae </td <td>Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1</td> <td>malia</td> <td>Aves</td> <td>Anseranatidae</td> <td>0199</td> <td></td> <td>10 10</td> <td>Magpie Goose</td> <td>V,P</td> <td></td> <td>43</td> <td></td>	Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1	malia	Aves	Anseranatidae	0199		10 10	Magpie Goose	V,P		43	
Animalia Aves Jacanidae 01:0 Predematopologisms Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediperar galinacea Omychopol nuscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediperar galinacea Omychopol nuscata V,P 3 Animalia Aves Cacatuldae 02:5 ^Calptorthynchus Glossy Black-Cockatoo V,P.2 1 Animalia Aves Strigidae 02:60 Glossopsita pusilia Utilite Lorikeet V,P.3 1 Animalia Aves Strigidae 02:46 Minox stenua Strigidae 02:46 Minox stenua Strigidae 02:5 Minox stenua Strigidae <t< td=""><td>Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna</td><td>malia</td><td>Aves</td><td>Anatidae</td><td>0214</td><td>Stictonetta naevosa</td><td></td><td>Freckled Duck</td><td>V,P</td><td></td><td>9</td><td></td></t<>	Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna	malia	Aves	Anatidae	0214	Stictonetta naevosa		Freckled Duck	V,P		9	
Animalia Aves Jacanidae 01:0 Predematopologisms Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediperar galinacea Omychopol nuscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediperar galinacea Omychopol nuscata V,P 3 Animalia Aves Cacatuldae 02:5 ^Calptorthynchus Glossy Black-Cockatoo V,P.2 1 Animalia Aves Strigidae 02:60 Glossopsita pusilia Utilite Lorikeet V,P.3 1 Animalia Aves Strigidae 02:46 Minox stenua Strigidae 02:46 Minox stenua Strigidae 02:5 Minox stenua Strigidae <t< td=""><td>Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna</td><td>malia</td><td>Aves</td><td>Ciconiidae</td><td>0183</td><td></td><td></td><td>Black-necked Stork</td><td>E1,P</td><td></td><td>184</td><td></td></t<>	Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna	malia	Aves	Ciconiidae	0183			Black-necked Stork	E1,P		184	
Animalia Aves Jacanidae 010 Predintargostris Pred Oxference E1,P 3 Animalia Aves Jacanidae 0111 irredipara galinacea Comb-crested Jacana V,P 90 Animalia Aves Jacanidae 0120 Onychopino fuscata Comb-crested Jacana V,P 90 Animalia Aves Patidade 0120 Onychopino fuscata Comb-crested Jacana V,P 90 Animalia Aves Patidade 0220 Conscretel Jacana V,P 3 Animalia Aves Strigidae 0240 Minox streue Backaronivens V,P 3 Animalia Aves Strigidae 0246 Minox streue Strigidae 0240 Minox streue Strigidae 0240 Minox streue Strigidae 024 Minox streue Strigidae 0240 Minox streue Strigidae	Animalia Aves Jacanidae 0130 Interflatopoid Softgrostris Pied Oystercetted Lacana V,P 3 Animalia Aves Jacanidae 0171 Iredparra galinacea Comb-crested Jacana V,P 90 Animalia Aves Jacanidae 0120 Onychopin fuscata V,P 3 Animalia Aves Psitaoidae 0220 Onychopin fuscata V,P 3 Animalia Aves Psitaoidae 0220 Onychopin fuscata V,P 3 Animalia Aves Strigidae 0240 Glossopsita pusilia Little Lorikkeet V,P 38 Animalia Aves Strigidae 0240 Minox strenua Minox strenua Masked Owl V,P,3 1 Animalia Aves Tytonidae 0250 MTyto novehollandiae Masked Owl V,P 3 Animalia Aves Chancical sagittata Back-chinaed Honeyater (eastern V,P 21 Animalia Aves Ponatostomus guaris Gievycrowned Babber (eastern V,P 10 Animalia Aves Ponatostomus guaris Scarlet Robin V,P 10 Animalia Aves Petroicidae	malia	Aves	Accipitridae	0226	Haliaeetus leucogaster	i i i i i i i i i i i i i i i i i i i	White-bellied Sea-Eagle			114	
Animalia Aves Jacanidae 01:0 Predematopsoid Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omexhon Ilscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omexhon Ilscata V,P 3 Animalia Aves Cacatuldae 02:05 Calaptorthynchus Illite Glossy Black-Cockatoo V,P,2 1 Animalia Aves Strigidae 02:06 Glossopsita pusilia Ultite Lonkeet V,P 38 Animalia Aves Strigidae 02:46 Minox sterua Strigidae 02:46 Minox sterua Strigidae 02:0 Minox sterua Strigidae </td <td>Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1</td> <td>malia</td> <td>Aves</td> <td>Accipitridae</td> <td>0225</td> <td>Hieraaetus morphnoides</td> <td>101</td> <td>Little Eagle</td> <td>V,P</td> <td></td> <td>20</td> <td></td>	Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1	malia	Aves	Accipitridae	0225	Hieraaetus morphnoides	101	Little Eagle	V,P		20	
Animalia Aves Jacanidae 01:0 Predematopologisms Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediperar galinacea Omychopol nuscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediperar galinacea Omychopol nuscata V,P 3 Animalia Aves Cacatuldae 02:5 ^Calptorthynchus Glossy Black-Cockatoo V,P.2 1 Animalia Aves Strigidae 02:60 Glossopsita pusilia Utilite Lorikeet V,P.3 1 Animalia Aves Strigidae 02:46 Minox stenua Strigidae 02:46 Minox stenua Strigidae 02:5 Minox stenua Strigidae <t< td=""><td>Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna</td><td>malia</td><td>Aves</td><td>Accipitridae</td><td>0230</td><td>^^Lophoictinia isura</td><td>1</td><td>Square-tailed Kite</td><td>V,P,3</td><td></td><td>31</td><td></td></t<>	Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna	malia	Aves	Accipitridae	0230	^^Lophoictinia isura	1	Square-tailed Kite	V,P,3		31	
Animalia Aves Jacanidae 01:0 Predematopologisms Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediperar galinacea Omychopol nuscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediperar galinacea Omychopol nuscata V,P 3 Animalia Aves Cacatuldae 02:5 ^Calptorthynchus Glossy Black-Cockatoo V,P.2 1 Animalia Aves Strigidae 02:60 Glossopsita pusilia Utilite Lorikeet V,P.3 1 Animalia Aves Strigidae 02:46 Minox stenua Strigidae 02:46 Minox stenua Strigidae 02:5 Minox stenua Strigidae <t< td=""><td>Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna</td><td></td><td></td><td></td><td></td><td></td><td>ę</td><td></td><td>V,P,3</td><td></td><td>51</td><td></td></t<>	Animalia Aves Internatiopodia 01:00 International internatinternational internatinternational international interna						ę		V,P,3		51	
Animalia Aves Jacanidae 01:0 Predematopsoid Pred Oxference E1,P 3 Animalia Aves Jacanidae 01:11 Irrediparra galinacea Omexhon Ilscata V,P 90 Animalia Aves Jacanidae 01:01 Irrediparra galinacea Omexhon Ilscata V,P 3 Animalia Aves Cacatuldae 02:05 Calaptorthynchus Illite Glossy Black-Cockatoo V,P,2 1 Animalia Aves Strigidae 02:06 Glossopsita pusilia Ultite Lonkeet V,P 38 Animalia Aves Strigidae 02:46 Minox sterua Strigidae 02:46 Minox sterua Strigidae 02:0 Minox sterua Strigidae </td <td>Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1</td> <td>malia</td> <td>Aves</td> <td>Burhinidae</td> <td></td> <td>Burhinus grallarius</td> <td>•</td> <td>Bush Stone-curlew</td> <td></td> <td></td> <td></td> <td></td>	Animalia Aves Jacanidae 010 Predmatopsoids ingressins Pred Dystercation E1,P 3 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Jacanidae 0171 Irediparra gelinacea Omychopino fuscata V.P 90 Animalia Aves Destination Cacatuldae 025 "Calptorfnynchus Jatanimalia V.P 3 Animalia Aves Strigidae 0240 Glossopsita pusile Mila Jatanimalia V.P 38 Animalia Aves Strigidae 0240 Milnox strenua Milnox strenua Milnox strenua Milnox strenua Masked Owi V.P.3 1 Animalia Aves Tytonoidae 0250 Milno strenua Milnox strenua Masked Owi V.P 2 1 Animalia Aves Connacteridae 0250 Milnox strenua Masked Owi V.P 2 1 Animalia Aves Contronicola sagitata gularis gularis 1 1	malia	Aves	Burhinidae		Burhinus grallarius	•	Bush Stone-curlew				
Armalia Aves Lytondae 0250 "/tyto novaenoliandae Tyto novaenoliandae T	Animalia Aves Lyonidae 0250 *** lyo novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagittata gularis Speckled Warbler V,P 19 Animalia Aves Pomatostomus temporalis Speckled Warbler V,P 19 Animalia Aves Neosittidae 0549 Chaphoenositta chrysoptera Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0380 Petroica poneticea Flame Robin V,P 7 Animalia Aves Setroidae 0382 Petroica poneticea Brush-talied Quoll V,P 7	malia	Aves		0130	Haematopus longirostris	1	Pied Oystercatcher				
Animalia Aves Lytonidae 0250 "/ tyto novaeholiandae VP, 3 2 Animalia Aves Climacteridae 8127 Climacteria journus victoriae Brown Treecreeper (eastern v.P.P 74 Animalia Aves Acanthizidae 0504 Chitonicola sagittata guitaris guitaris guitaris Brown Treecreeper (eastern v.P.P 21 Animalia Aves Meliphagidae 8303 Melithreptus gularis Speckled Wahler V.P 21 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera V.P 19 Animalia Aves Artamidae 6519 Artamus cyanopterus cya	Animalia Aves Lyonidae 0250 ^^* lyo novaehollandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern v.P.P 74 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis <gularis< td=""> Brown Treecreeper (eastern v.P.P 52 Animalia Aves Meliphagidae 8388 Pomatostomus temporalis te</gularis<>	malia	Aves	Jacanidae		Irediparra gallinacea	1	Comb-crested Jacana				
Animalia Aves Lytonidae 0250 "/ tyto novaeholiandae VP, 3 2 Animalia Aves Climacteridae 8127 Climacteria journus victoriae Brown Treecreeper (eastern v.P.P 74 Animalia Aves Acanthizidae 0504 Chitonicola sagittata guitaris guitaris guitaris Brown Treecreeper (eastern v.P.P 21 Animalia Aves Meliphagidae 8303 Melithreptus gularis Speckled Wahler V.P 21 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera V.P 19 Animalia Aves Artamidae 6519 Artamus cyanopterus cya	Animalia Aves Lyonidae 0250 ^^* lyo novaehollandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern v.P.P 74 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis <gularis< td=""> Brown Treecreeper (eastern v.P.P 21 Animalia Aves Meliphagidae 8388 Pomatostomus temporalis te</gularis<>						2					
Armalia Aves Lytondae 0250 "/tyto novaenoliandae Tyto novaenoliandae T	Animalia Aves Lyonidae 0250 *** lyo novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagittata gularis Speckled Warbler V,P 19 Animalia Aves Pomatostomus temporalis Speckled Warbler V,P 19 Animalia Aves Neosittidae 0549 Chaphoenositta chrysoptera Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0380 Petroica poneticea Flame Robin V,P 7 Animalia Aves Setroidae 0382 Petroica poneticea Brush-talied Quoll V,P 7	malia	Aves			lathami	10 I 0					
Armalia Aves Lytondae 0250 "/tyto novaenoliandae Tyto novaenoliandae T	Animalia Aves Lyonidae 0250 *** lyo novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagittata gularis Speckled Warbler V,P 19 Animalia Aves Pomatostomus temporalis Speckled Warbler V,P 19 Animalia Aves Neosittidae 0549 Chaphoenositta chrysoptera Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0380 Petroica poneticea Flame Robin V,P 7 Animalia Aves Setroidae 0382 Petroica poneticea Brush-talied Quoll V,P 7	malia	Aves				e					
Armalia Aves Lytondae 0250 "/tyto novaenoliandae Tyto novaenoliandae T	Animalia Aves Lyonidae 0250 *** lyo novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata gularis gularis Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagittata gularis Speckled Warbler V,P 19 Animalia Aves Pomatostomus temporalis Speckled Warbler V,P 19 Animalia Aves Neosittidae 0549 Chaphoenositta chrysoptera Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0380 Petroica poneticea Flame Robin V,P 7 Animalia Aves Setroidae 0382 Petroica poneticea Brush-talied Quoll V,P 7						*				-	
Armalia Aves Lytonidae 0250 "/yto novaenolandae T 2 Animalia Aves Climacteridae 8127 Climacteridae Stores V.P 74 Animalia Aves Climacteridae 8127 Climacteridae Stores V.P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata Speckled Warbler V.P 21 Binumalia Aves Acanthizidae 0504 Chitonicola sagittata Speckled Warbler V.P 21 Inimalia Aves Pomatostomida 838 Pomatostomus Speckled Warbler V.P 19 Inimalia Aves Pomatostomida 838 Pomatostomus Speckled Warbler V.P 48 Animalia Aves Artamidae 8519 Artamis cyanopterus Dusky Woodswallow V.P 10 Vinimalia Aves Petrolicidae 0380 Petroica phoenicea Flame Robin V.P 1 Nimalia Aves Estrilididae 0652 Stagonopleura guitata Diamond Firetail V.P <td>Armalia Aves Lytonidae 0250 **/ iyto novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagitata gularis gularis gularis<gularis< td=""> Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagitata Speckled Warbler V,P 19 Animalia Aves Meliphagidae 0549 Daphoenositia Grey-crowned Babbler (eastern victoriae V,P 48 Animalia Aves Petroliciae 0380 Petroica phoenicea Dusky Woodswallow V,P 10 Animalia Aves Petroliciae 0380 Petrolica boodang Scarlet Robin V,P 7 Animalia Aves Petrolicae 0380 Petrolica potafa Diamond Firetaii V,P 7 Animalia Aves Setrolicae 0382 Petroica phoeticea Filame Robin V,P 7 Animalia Aves <</gularis<></td> <td>malia</td> <td></td> <td>Strigidae</td> <td></td> <td>^^Ninox strenua</td> <td>9</td> <td>Powerful Owl</td> <td></td> <td></td> <td>1</td> <td></td>	Armalia Aves Lytonidae 0250 **/ iyto novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagitata gularis gularis gularis <gularis< td=""> Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagitata Speckled Warbler V,P 19 Animalia Aves Meliphagidae 0549 Daphoenositia Grey-crowned Babbler (eastern victoriae V,P 48 Animalia Aves Petroliciae 0380 Petroica phoenicea Dusky Woodswallow V,P 10 Animalia Aves Petroliciae 0380 Petrolica boodang Scarlet Robin V,P 7 Animalia Aves Petrolicae 0380 Petrolica potafa Diamond Firetaii V,P 7 Animalia Aves Setrolicae 0382 Petroica phoeticea Filame Robin V,P 7 Animalia Aves <</gularis<>	malia		Strigidae		^^Ninox strenua	9	Powerful Owl			1	
Armalia Aves Lytonidae 0250 "/yto novaenolandae T 2 Animalia Aves Climacteridae 8127 Climacteridae Stores V.P 74 Animalia Aves Climacteridae 8127 Climacteridae Stores V.P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagittata Speckled Warbler V.P 21 Binumalia Aves Acanthizidae 0504 Chitonicola sagittata Speckled Warbler V.P 21 Inimalia Aves Pomatostomida 838 Pomatostomus Speckled Warbler V.P 19 Inimalia Aves Pomatostomida 838 Pomatostomus Speckled Warbler V.P 48 Animalia Aves Artamidae 8519 Artamis cyanopterus Dusky Woodswallow V.P 10 Vinimalia Aves Petrolicidae 0380 Petroica phoenicea Flame Robin V.P 1 Nimalia Aves Estrilididae 0652 Stagonopleura guitata Diamond Firetail V.P <td>Armalia Aves Lytonidae 0250 **/ iyto novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagitata gularis gularis gularis<gularis< td=""> Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagitata Speckled Warbler V,P 19 Animalia Aves Meliphagidae 0549 Daphoenositia Grey-crowned Babbler (eastern victoriae V,P 48 Animalia Aves Petroliciae 0380 Petroica phoenicea Dusky Woodswallow V,P 10 Animalia Aves Petroliciae 0380 Petrolica boodang Scarlet Robin V,P 7 Animalia Aves Petrolicae 0380 Petrolica potafa Diamond Firetaii V,P 7 Animalia Aves Setrolicae 0382 Petroica phoeticea Filame Robin V,P 7 Animalia Aves <</gularis<></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>:</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Armalia Aves Lytonidae 0250 **/ iyto novaenoliandiae Masked Owl V,P3 2 Animalia Aves Climacteridae 8127 Climacteridae Brown Treecreeper (eastern victoriae V,P 21 Animalia Aves Acanthizidae 0504 Chitonicola sagitata gularis gularis gularis <gularis< td=""> Speckled Warbler V,P 21 Animalia Aves Meliphagidae 0504 Chitonicola sagitata Speckled Warbler V,P 19 Animalia Aves Meliphagidae 0549 Daphoenositia Grey-crowned Babbler (eastern victoriae V,P 48 Animalia Aves Petroliciae 0380 Petroica phoenicea Dusky Woodswallow V,P 10 Animalia Aves Petroliciae 0380 Petrolica boodang Scarlet Robin V,P 7 Animalia Aves Petrolicae 0380 Petrolica potafa Diamond Firetaii V,P 7 Animalia Aves Setrolicae 0382 Petroica phoeticea Filame Robin V,P 7 Animalia Aves <</gularis<>						:					
Animalia Aves Acanthizidae 0504 Chthonicola sagittata planis gularis g	Animalia Aves Acanthizidae 0504 Chibanoida sagitata Subspecies) Animalia Aves Meliphagidae 8303 Melithreptus gularis gularis gularis de la secte de la											
Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern subspecies) V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Sitelia V,P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica phoenicea Flame Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica phoenicea Flame Robin V,P 7 Animalia Aves Estrildidae 0652 Stagonoplaura guitata Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1017 Phascoglat fapo calatafa Brush-tailed Phascogale V,P 1 Animalia Mammalia Descolarctidae 1162 Phascolarctos cinereus Koala V,P 4 Animalia Mammalia <td< td=""><td>Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Varied Sittella V.P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica ponenicea a priencica ponenicea a priencica ponenicea petroica ponenicea petroica booding Scarlet Robin V,P 7 Animalia Aves Petroicidae 0632 Stagonopleura gutata a Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1018 Phascoalartía Brush-tailed Phascogale V,P 1 Animalia Mammalia Dasyuridae 1045 Planigale maculata Brush-tailed Phascogale V,P 1 Animalia Mammalia Petauridae 1137 Petaurus norfolcensis Aepypyrmus rufescens Squirrel</td><td>malia</td><td>Aves</td><td></td><td></td><td>victoriae</td><td></td><td>subspecies)</td><td></td><td></td><td></td><td></td></td<>	Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Varied Sittella V.P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica ponenicea a priencica ponenicea a priencica ponenicea petroica ponenicea petroica booding Scarlet Robin V,P 7 Animalia Aves Petroicidae 0632 Stagonopleura gutata a Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1018 Phascoalartía Brush-tailed Phascogale V,P 1 Animalia Mammalia Dasyuridae 1045 Planigale maculata Brush-tailed Phascogale V,P 1 Animalia Mammalia Petauridae 1137 Petaurus norfolcensis Aepypyrmus rufescens Squirrel	malia	Aves			victoriae		subspecies)				
Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern subspecies) V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Sitelia V,P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica phoenicea Flame Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica phoenicea Flame Robin V,P 7 Animalia Aves Estrildidae 0652 Stagonoplaura guitata Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1017 Phascoglat fapo calatafa Brush-tailed Phascogale V,P 1 Animalia Mammalia Descolarctidae 1162 Phascolarctos cinereus Koala V,P 4 Animalia Mammalia <td< td=""><td>Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Varied Sittella V.P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica ponenicea a priencica ponenicea a priencica ponenicea petroica ponenicea petroica booding Scarlet Robin V,P 7 Animalia Aves Petroicidae 0632 Stagonopleura gutata a Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1018 Phascoalartía Brush-tailed Phascogale V,P 1 Animalia Mammalia Dasyuridae 1045 Planigale maculata Brush-tailed Phascogale V,P 1 Animalia Mammalia Petauridae 1137 Petaurus norfolcensis Aepypyrmus rufescens Squirrel</td><td>malia</td><td>Aves</td><td>Acanthizidae</td><td></td><td></td><td>i</td><td></td><td></td><td></td><td></td><td></td></td<>	Animalia Aves Pomatostomida 8388 Pomatostomus temporalis temporalis Grey-crowned Babbler (eastern V,P 19 Animalia Aves Neosittidae 0549 Daphoenositta chrysoptera Varied Sittella V.P 48 Animalia Aves Artamidae 8519 Artamus cyanopterus cyanopterus cyanopterus Dusky Woodswallow V,P 10 Animalia Aves Petroicidae 0380 Petroica boodang Scarlet Robin V,P 7 Animalia Aves Petroicidae 0382 Petroica ponenicea a priencica ponenicea a priencica ponenicea petroica ponenicea petroica booding Scarlet Robin V,P 7 Animalia Aves Petroicidae 0632 Stagonopleura gutata a Diamond Firetail V,P 7 Animalia Mammalia Dasyuridae 1018 Phascoalartía Brush-tailed Phascogale V,P 1 Animalia Mammalia Dasyuridae 1045 Planigale maculata Brush-tailed Phascogale V,P 1 Animalia Mammalia Petauridae 1137 Petaurus norfolcensis Aepypyrmus rufescens Squirrel	malia	Aves	Acanthizidae			i					
AnimaliaAvesArtamidae8519Artamis cyanopterus cyanopterusDusky WoodswallowV,P10AnimaliaAvesPetroicidae0380Petroica boodangScarlet RobinV,P7AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P4AnimaliaMammaliaPetropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaMolossidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammalia <td>AnimaliaAvesArtamidae8519Artamus cyanopterus cyanopterusDusky WoodswallowV,P10AnimaliaAvesPetroicidae0380Petroica boodangScarlet RobinV,P7AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMarmaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculatusSpotted-tailed PhascogaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculatusCommon PlanigaleV,P1AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,PV388AnimaliaMammaliaPetaoridae1187Aepyprymnus rufescensRufous BettongV,P4AnimaliaMammaliaPetropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMammaliaViniopteridae1361Scoteanax rueppelliiGreater Broad</td> <td>malia</td> <td>Aves</td> <td>Meliphagidae</td> <td></td> <td></td> <td>i</td> <td></td> <td></td> <td></td> <td></td> <td></td>	AnimaliaAvesArtamidae8519Artamus cyanopterus cyanopterusDusky WoodswallowV,P10AnimaliaAvesPetroicidae0380Petroica boodangScarlet RobinV,P7AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMarmaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculatusSpotted-tailed PhascogaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculatusCommon PlanigaleV,P1AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,PV388AnimaliaMammaliaPetaoridae1187Aepyprymnus rufescensRufous BettongV,P4AnimaliaMammaliaPetropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMammaliaViniopteridae1361Scoteanax rueppelliiGreater Broad	malia	Aves	Meliphagidae			i					
AnimaliaAvesArtamidae8519Artamic granopterus cyanopterusDusky WoodswallowV,P10AnimaliaAvesPetroicidae0380Petroica boodangScarlet RobinV,P7AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,PVAnimaliaMammaliaPetauridae1187Aepyprymnus rufescensRufous BettongV,PVAnimaliaMammaliaPetropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaMolossidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammaliaVespertilion	AnimaliaAvesArtamidae8519Artamus cyanopterus cyanopterusDusky WoodswallowV,P10AnimaliaAvesPetroicidae0380Petroica boodangScarlet RobinV,P7AnimaliaAvesPetroicidae0382Petroica boodangScarlet RobinV,P7AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculatusSpotted-tailed QuollV,P1AnimaliaMammaliaDasyuridae1045Planigale maculatusSpotted-tailed QuollV,P1AnimaliaMammaliaPhascolarctidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,PV498AnimaliaMammaliaPetropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1364Miniopterus australisLittle Bent-winged BatV,P <td></td> <td>Aves</td> <td>е</td> <td></td> <td></td> <td>1</td> <td>subspecies)</td> <td></td> <td></td> <td></td> <td></td>		Aves	е			1	subspecies)				
Animalia AnimaliaAves PetroicidaePetroica boodang Petroica boodangScarlet RobinV,P7Animalia AnimaliaAves Petroicade0380Petroica phoenicea Petroica phoeniceaFlame RobinV,P1Animalia AvesEstrildidae0852Stagonopleura guttata Diamond FiretailDiamond FiretailV,P7Animalia AnimaliaMammalia DasyuridaeDasyurus maculatus Phascogale tapoatafaSpotted-tailed QuollV,PE3Animalia Animalia MammaliaDasyuridae1017 Phascogale tapoatafaBrush-tailed PhascogaleV,P51Animalia Animalia MammaliaDasyuridae1017 PhascolarctidaePhascolarctidaeCommon PlanigaleV,PV388Animalia Mammalia MammaliaPetauridae1162 PhascolarctidaePlancolarctidaeSquirrel GliderV,PV388Animalia Mammalia MammaliaPetauridae1187 Aepyprymnus rufescensRufous BettongV,PV498Animalia Mammalia MammaliaPteropodidae120 Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-foxV,PV498Animalia MammaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3Animalia AnimaliaMammalia MammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4Animalia AnimaliaMammalia Mammalia <td< td=""><td>Animalia Animalia Aves Animalia Aves Animalia Aves PetroicidaeO380 Petroica phoeniceaScarlet RobinV.P7Animalia Animalia Aves Animalia Animalia Mammalia Dasyuridae0382 Destroica phoeniceaScarlet RobinV.P1Animalia Animalia Animalia Animalia Mammalia Mammalia Dasyuridae1008 Dasyurus maculatus Dasyurus maculatus Phascogale tapoatafa Phascogale tapoatafa Brush-tailed Phascogale Common PlanigaleV.PE3Animalia Animalia MammaliaDasyuridae Dasyuridae 1045 Planigale maculata Phascolarctos cinereusSpotted-tailed Quoll Brush-tailed Phascogale Common PlanigaleV.PE3Animalia Animalia MammaliaPetauridae Plascolarctidae1162 Phascolarctos cinereusKoalaV.PV388Animalia Mammalia MammaliaPetauridae Pteropodidae1137 Aepyprymnus rufescensRufous BettongV.P6Animalia Mammalia MammaliaPetaoroidae 1187Petropus policcephalus Saccolarinus flaviventrisGrey-headed Flying-foxV.PV498Animalia Mammalia MammaliaMolossidae1329Micronomus norfolkensis Saccolarinus flaviventrisEastern Coastal Free-tailed Bat V.PV,P3Animalia Animalia MammaliaMammalia MammaliaVespertilionidae1361 Scoteanax rueppelliiGreater Broad-nosed Bat Large Bent-winged Bat V.P4Animalia Animalia MammaliaMiniopteridae1346 Miniopterus orianaeLittle Bent</td><td>malia</td><td>Aves</td><td>Neosittidae</td><td></td><td></td><td>i</td><td>Varied Sittella</td><td>,</td><td></td><td></td><td></td></td<>	Animalia Animalia Aves Animalia Aves Animalia Aves PetroicidaeO380 Petroica phoeniceaScarlet RobinV.P7Animalia Animalia Aves Animalia Animalia Mammalia Dasyuridae0382 Destroica phoeniceaScarlet RobinV.P1Animalia Animalia Animalia Animalia Mammalia Mammalia Dasyuridae1008 Dasyurus maculatus Dasyurus maculatus Phascogale tapoatafa Phascogale tapoatafa Brush-tailed Phascogale Common PlanigaleV.PE3Animalia Animalia MammaliaDasyuridae Dasyuridae 1045 Planigale maculata Phascolarctos cinereusSpotted-tailed Quoll Brush-tailed Phascogale Common PlanigaleV.PE3Animalia Animalia MammaliaPetauridae Plascolarctidae1162 Phascolarctos cinereusKoalaV.PV388Animalia Mammalia MammaliaPetauridae Pteropodidae1137 Aepyprymnus rufescensRufous BettongV.P6Animalia Mammalia MammaliaPetaoroidae 1187Petropus policcephalus Saccolarinus flaviventrisGrey-headed Flying-foxV.PV498Animalia Mammalia MammaliaMolossidae1329Micronomus norfolkensis Saccolarinus flaviventrisEastern Coastal Free-tailed Bat V.PV,P3Animalia Animalia MammaliaMammalia MammaliaVespertilionidae1361 Scoteanax rueppelliiGreater Broad-nosed Bat Large Bent-winged Bat V.P4Animalia Animalia MammaliaMiniopteridae1346 Miniopterus orianaeLittle Bent	malia	Aves	Neosittidae			i	Varied Sittella	,			
AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PEAnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,PE3AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,PV388AnimaliaMammaliaPetauridae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetaorojade1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaPteropodidae1321Saccolaimus flaviventrisYellow-bellied Sheathtail-batV,P3AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaVespertilionidae1366Miniopterus australisLittle Bent-winged BatV,P4	AnimaliaAvesPetroicidae0382Petroica phoeniceaFlame RobinV,P1AnimaliaAvesEstrilididae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,P5AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaPhascolarctidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetaoroidae1187Aepyprymnus rufescensRufous BettongV,PV498AnimaliaMammaliaPteropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaMammaliaMammaliaMammaliaV,P33AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4AnimaliaMammaliaMolossidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1366Miniopterus australisLittle Bent-winged BatV,P4	malia	Aves	Artamidae				Dusky Woodswallow			10	
Animalia AnimaliaAves MammaliaEstrildidae Dasyuridae0652 1008 DasyuridaeStagono/leura guttata DasyuridaDiamond FiretailV,P7Animalia Animalia Animalia Mammalia Dasyuridae1008 DasyuridaeDasyurus maculatus Dasyurus maculatusSpotted-tailed QuollV,PE3Animalia Mammalia Dasyuridae1007 DasyuridaePhascogale tapoatafa Phascogale tapoatafaBrush-tailed PhascogaleV,PE3Animalia Mammalia MammaliaDasyuridae1045 Planigale maculataCommon PlanigaleV,PV388Animalia MammaliaPetauruidae Potoroidae1137 Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,PV498Animalia Mammalia MammaliaPetoroidae I 1872800 petocephalus Saccolarius flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498Animalia MammaliaMammalia Emballonuridae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4Animalia MammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2Animalia MammaliaMammalia MammaliaMiniopteridae1366Miniopterus australisLittle Bent-winged BatV,P4	AnimaliaAvesEstrildidae0652Stagonopleura guttataDiamond FiretailV,P7AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,P5AnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetaoridae1187Aepyprymnus rufescensRufous BettongV,PV498AnimaliaMammaliaPetropoidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaMolossidae1321Saccolaimus flaviventrisYellow-bellied Sheathtail-batV,P3AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P4AnimaliaMammaliaMiniopteridae330Miniopter											
AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,P5AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaPhascolarctidae1162PhascolarctidaeCommon PlanigaleV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetauridae1187Aepyprymnus rufescensRufous BettongV,P8AnimaliaMammaliaPeteropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMolossidae1321Saccolarinus flaviventrisYellow-bellied Sheathtail-batV,P3AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMinopteridae1366Miniopterus australisLittle Bent-winged BatV,P4	AnimaliaMammaliaDasyuridae1008Dasyurus maculatusSpotted-tailed QuollV,PE3AnimaliaMammaliaDasyuridae1017Phascogale tapoatafaBrush-tailed PhascogaleV,P5AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaDasyuridae1045Planigale maculataCommon PlanigaleV,P1AnimaliaMammaliaPhascolarctidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPotoroidae1187Aepyprymnus rufescensRufous BettongV,P8AnimaliaMammaliaPteropodidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMammaliaEmballonuridae1321Saccolarimus flaviventrisYellow-bellied Sheathtail-batV,P3AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4AnimaliaMammaliaMammaliaMiniopterudae3330Miniopte											
Animalia AnimaliaMammalia DasyuridaeDasyuridae 10451017 Phascogale tapoatafa Planigale maculata Phascolarctos cinereusBrush-tailed Phascogale Common PlanigaleV,P5Animalia AnimaliaDasyuridae Phascolarctidae1045 1162Phascolarctos cinereusCommon Planigale KoalaV,PV388Animalia AnimaliaMammalia Potoroidae1137 1187Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,PV388Animalia AnimaliaMammalia Potoroidae1187 1280Petropus poliocephalus Saccolarius flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498Animalia AnimaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed Bat Southern MyotisV,P4Animalia MammaliaMammalia Vespertilionidae1357Myotis macropusSouthern MyotisV,P2Animalia MammaliaMammalia MammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2Animalia MammaliaMammalia MammaliaMiniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4	Animalia AnimaliaMammalia DasyuridaeDasyuridae Planigale maculata1017 Planigale maculataPhascogale tapoatafa Planigale maculataBrush-tailed Phascogale Common PlanigaleV,P5Animalia AnimaliaMammalia Phascolarctidae1162Phascolarctos cinereusKoalaV,PV388Animalia AnimaliaMammalia Phascolarctidae1162Phascolarctos cinereusKoalaV,PV388Animalia AnimaliaMammalia Potoroidae1187 187Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,P6Animalia AnimaliaMammalia MammaliaPetoropodiae Emballonuridae1280 1321Pteropus poliocephalus Saccolarinus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498Animalia AnimaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed Bat Southern MyotisV,P4Animalia AnimaliaMammalia MammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed Bat Large Bent-winged BatV,P4Animalia AnimaliaMammalia MammaliaMiniopteridae1346 Miniopterus australis Miniopterus orianaeLittle Bent-winged Bat Large Bent-winged BatV,P4									_		
Animalia AnimaliaMammalia MammaliaDasyuridae Phascolarctidae1045 1162Plangale maculata Phascolarctos cinereusCommon PlangaleV,PV1AnimaliaMammalia MammaliaPetauridae Potoroidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammalia MammaliaPetauridae Potoroidae1137 1187Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,P6AnimaliaMammalia MammaliaPteropodidae Emballonuridae1280 1321Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498AnimaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4	Animalia AnimaliaMammalia MammaliaDasyuridae Phascolarctidae1045 1162Planigale maculata Phascolarctos cinereusCommon Planigale KoalaV,PV1Animalia AnimaliaMammalia MammaliaPetauridae Potoroidae1137 1187Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,PV388Animalia AnimaliaMammalia MammaliaPetauridae Potoroidae1137 1287Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,PV498Animalia AnimaliaMammalia MammaliaPetoropodidae Emballonuridae1280 1321Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498Animalia AnimaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed Bat Southern MyotisV,P4Animalia AnimaliaMammalia MammaliaVespertilionidae1361 Scoteanax rueppelliGreater Broad-nosed Bat Large Bent-winged Bat V,PV,P4									E		
AnimaliaMammaliaPhascolarctidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel Glider Rufous BettongV,PV6AnimaliaMammaliaPetoroidae1187Aepyprymnus rufescensSquirrel Glider Rufous BettongV,PV498AnimaliaMammaliaPteropodidae1280Pteropus poliocephalus Saccolairuus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4	AnimaliaMammaliaPhascolarctidae1162Phascolarctos cinereusKoalaV,PV388AnimaliaMammaliaPetauridae1137Petaurus norfolcensisSquirrel GliderV,P6AnimaliaMammaliaPetoroidae1187Aepyprymnus rufescensRufous BettongV,P6AnimaliaMammaliaPteropolidae1280Pteropus poliocephalusGrey-headed Flying-foxV,PV498AnimaliaMammaliaMemmaliaMolossidae1321Saccolaimus flaviventrisYellow-bellied Sheathtail-batV,P3AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1366Miniopterus australisLittle Bent-winged BatV,P4AnimaliaMammaliaMiniopteridae330Miniopterus orianaeLarge Bent-winged BatV,P4											
Animalia AnimaliaPetauridae Potoroidae1137 1187Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,P6Animalia AnimaliaMammalia Potoroidae1280 1321Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-belied Sheathtail-batV,PV498Animalia AnimaliaMammalia MammaliaMolossidae1320Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-belied Sheathtail-batV,PV498Animalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammalia Vespertilionidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammalia MammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammalia Miniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4	Animalia AnimaliaMammalia PetauridaePetauridae 11371137 Petaurus norfolcensis Aepyprymnus rufescensSquirrel Glider Rufous BettongV,P6Animalia AnimaliaMammalia MammaliaPteropodidae Emballonuridae1280 1321Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498Animalia AnimaliaMammalia MammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3Animalia AnimaliaMammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4Animalia MammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2Animalia MammaliaMiniopteridae1346Miniopterus australis Miniopterus orianaeLittle Bent-winged BatV,P4									V		
AnimaliaMammaliaPotoroidae1187Aepyprymus rufescensRufous BettongV,P8AnimaliaMammaliaPteropodidae1280Pteropus poliocephalus Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498AnimaliaMammaliaMolossidae1321Saccolaimus flaviventrisGrey-headed Flying-fox Yellow-bellied Sheathtail-batV,PV498AnimaliaMammaliaMolossidae1329Micronomus norfolkensisEastern Coastal Free-tailed BatV,P3AnimaliaMammaliaVespertilionidae1357Myotis macropusSouthern MyotisV,P4AnimaliaMammaliaVespertilionidae1361Scoteanax rueppelliiGreater Broad-nosed BatV,P2AnimaliaMammaliaMiniopteridae1346Miniopterus australisLittle Bent-winged BatV,P4	Animalia Mammalia Potoroidae 1187 Aepyprymnus rufescens Rufous Bettong V,P 8 Animalia Mammalia Pteropodidae 1280 Pteropus poliocephalus Grey-headed Flying-fox V,P V 498 Animalia Mammalia Pteropodidae 1321 Saccolaimus flaviventris Yellow-bellied Sheathtail-bat V,P V 498 Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1360 Miniopterus australis Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopterus orianae Large Bent-winged Bat V,P 4											
Animalia Mammalia Pteropodidae 1280 Pteropus poliocephalus Grey-headed Flying-fox V,P V 498 Animalia Mammalia Emballonuridae 1321 Saccolaimus flaviventris Yellow-bellied Sheathtail-bat V,P V 498 Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 Miniopterus australis Little Bent-winged Bat V,P 4	Animalia Mammalia Pteropodidae 1280 Pteropus poliocephalus Grey-headed Flying-fox V,P V 498 Animalia Mammalia Emballonuridae 1321 Saccolaimus flaviventris Yellow-bellied Sheathtail-bat V,P V 498 Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1366 Miniopterus australis Little Bent-winged Bat V,P 4 Animalia Mammalia Mammalia Miniopteridae 330 Miniopterus orianae Large Bent-winged Bat V,P 1											
Animalia Mammalia Emballonuridae 1321 Saccolaimus flaviventris Yellow-bellied Sheathtail-bat V,P 3 Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 Miniopterus australis Little Bent-winged Bat V,P 4	Animalia Mammalia Emballonuridae 1321 Saccolaimus flaviventris Yellow-bellied Sheathtail-bat V,P 3 Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1366 Miniopterus australis Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopteridae 3330 Miniopterus orianae Large Bent-winged Bat V,P 1	malia	Mammalia	Potoroidae		Aepyprymnus rutescens		Rutous Bettong	,		-	
Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 Miniopterus australis Little Bent-winged Bat V,P 4	Animalia Mammalia Molossidae 1329 Micronomus norfolkensis Eastern Coastal Free-tailed Bat V,P 3 Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1366 Miniopterus australis Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopteridae 330 Miniopterus orianae Large Bent-winged Bat V,P 1									V		
Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 Miniopterus australis Little Bent-winged Bat V,P 4	Animalia Mammalia Vespertilionidae 1357 Myotis macropus Southern Myotis V,P 4 Animalia Mammalia Vespertilionidae 1361 Scoteanax rueppellii Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1364 Miniopterus australis Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopteridae 330 Miniopterus orianae Large Bent-winged Bat V,P 1	malia	Mammalia	Emballonuridae	1321	Saccolaimus flaviventris		Yellow-bellied Sheathtail-bat	V,P		3	
Animalia Mammalia Vespertilionidae 1361 <i>Scoteanax rueppellii</i> Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 <i>Miniopterus australis</i> Little Bent-winged Bat V,P 4	Animalia Mammalia Vespertilionidae 1361 <i>Scoteanax rueppellii</i> Greater Broad-nosed Bat V,P 2 Animalia Mammalia Miniopteridae 1346 <i>Miniopterus australis</i> Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopteridae 3330 <i>Miniopterus orianae</i> Large Bent-winged Bat V,P 1	malia	Mammalia	Molossidae	1329	Micronomus norfolkensis		Eastern Coastal Free-tailed Bat	V,P		3	
Animalia Mammalia Miniopteridae 1346 <i>Miniopterus australis</i> Little Bent-winged Bat V,P 4	Animalia Mammalia Miniopteridae 1346 <i>Miniopterus australis</i> Little Bent-winged Bat V,P 4 Animalia Mammalia Miniopteridae 3330 <i>Miniopterus orianae</i> Large Bent-winged Bat V,P 1	malia	Mammalia	Vespertilionidae	1357	Myotis macropus		Southern Myotis	V,P		4	
	Animalia Mammalia Miniopteridae 3330 <i>Miniopterus orianae</i> Large Bent-winged Bat V,P 1	malia	Mammalia	Vespertilionidae	1361	Scoteanax rueppellii		Greater Broad-nosed Bat	V,P		2	
Animalia Mammalia Miniopteridae 3330 <i>Miniopterus orianae</i> Large Bent-winged Bat V,P 1		malia	Mammalia	Miniopteridae	1346	Miniopterus australis		Little Bent-winged Bat	V,P		4	
		malia	Mammalia	Miniopteridae	3330	Miniopterus orianae		Large Bent-winged Bat	V,P		1	

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Threatened (listed on BC Act 2016) Plants in selected area [North: -29.65 West: 152.83 East: 152.93 South: -29.75] returned a total of 5 records of 4 species. Report generated on 20/01/2021 11:05 AM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Record s	Info
Plantae	Flora	Lamiaceae	13778	Prostanthera sejuncta			V		1	•
Plantae	Flora	Myrtaceae	4193	Eucalyptus tetrapleura		Square-fruited Ironbark	V	V	2	•
Plantae	Flora	Myrtaceae	4255	Melaleuca irbyana		Weeping Paperbark	E1		1	•
Plantae	Flora	Sapotaceae	11957	Niemeyera whitei		Rusty Plum, Plum Boxwood	V		1	i

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Threatened (listed on BC Act 2016) Communities in selected area [North: -29.65 West: 152.83 East: 152.93 South: -29.75] returned 0 records for 9 entities.

Report generated on 20/01/2021 11:11 AM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Record s	Info
Community				Coastal Cypress Pine Forest in the New South Wales North Coast Bioregion		Coastal Cypress Pine Forest in the New South Wales North Coast Bioregion	E3		К	1
Community				Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions		Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E3	V	К	1
Community				Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions		Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E3		К	i
Community				Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions		Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E3	CE	К	1
Community				Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions		Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions	E3	CE	К	i
Community				Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion		Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion	E3	CE	К	i
Community				Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion		Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion	E3		К	i
Community				Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions		Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	E3		К	i
Community				Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions		Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions	E3		К	i



Australian Government

Department of Agriculture, Water and the Environment

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 20/01/21 10:58:42

Summary Details Matters of NES Other Matters Protected by the EPBC Act Extra Information Caveat Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates	
Buffer: 5.0Km	



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	56
Listed Migratory Species:	37

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	43
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	1
Regional Forest Agreements:	1
Invasive Species:	29
Nationally Important Wetlands:	2
<u>Key Ecological Features (Marine)</u>	None

Matters of National Environmental Significance

Listed Threatened Ecological Communities

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological	Endangered	Community may occur within area
<u>community</u> Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area
<u>Botaurus poiciloptilus</u>		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<u>Calidris ferruginea</u>		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
<u>Diomedea antipodensis_gibsoni</u>		
Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
Erythrotriorchis radiatus		
Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area

[Resource Information]

Name	Status	Type of Presence
<u>Grantiella picta</u> Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
<u>Hirundapus caudacutus</u> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<u>Lathamus discolor</u> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
<u>Macronectes giganteus</u> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<u>Macronectes halli</u> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<u>Numenius madagascariensis</u> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur_subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
<u>Rostratula australis</u> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<u>Sternula nereis_nereis</u> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche cauta</u> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<u>Thalassarche eremita</u> Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche melanophris</u> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche salvini</u> Salvin's Albatross [64463]	Vulnerable	Species or species habitat likely to occur within area
<u>Thalassarche steadi</u> White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur within area
<u>Turnix melanogaster</u> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area
Fish		
Epinephelus daemelii Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Insects		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within

Name	Status	Type of Presence
		area
Mammals		
<u>Chalinolobus dwyeri</u>		
Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland populatio	<u>n)</u>	
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Petauroides volans		
Greater Glider [254]	Vulnerable	Species or species habitat known to occur within area
Petrogale penicillata		
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, N	ISW and the ACT)	
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus tridactylus) (ula erable	Creation or encoded hebitat
Long-nosed Potoroo (SE Mainland) [66645]	Vulnerable	Species or species habitat may occur within area
Pseudomys novaehollandiae		
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Plants		
Acacia ruppii		
Rupp's Wattle [7559]	Endangered	Species or species habitat may occur within area
Angophora robur		
Sandstone Rough-barked Apple [56088]	Vulnerable	Species or species habitat likely to occur within area
Arthraxon hispidus		
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area
Cryptostylis hunteriana		
Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
<u>Cynanchum elegans</u>		
White-flowered Wax Plant [12533]	Endangered	Species or species habitat may occur within area
Dichanthium setosum		
bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area
<u>Eucalyptus glaucina</u>		
Slaty Red Gum [5670]	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus tetrapleura		
Square-fruited Ironbark [7490]	Vulnerable	Species or species habitat likely to occur within area
Macadamia integrifolia		
Macadamia Nut, Queensland Nut Tree, Smooth- shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat may occur within area
Macadamia tetraphylla		
Rough-shelled Bush Nut, Macadamia Nut, Rough- shelled Macadamia, Rough-leaved Queensland	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence
Nut [6581]		within area
<u>Marsdenia longiloba</u>		
Clear Milkvine [2794]	Vulnerable	Species or species habitat
		may occur within area
Rhodamnia rubescens		
Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat
		may occur within area
Rhodomyrtus psidioides		
Native Guava [19162]	Critically Endangered	Species or species habitat
	enneany _naengerea	likely to occur within area
The shows exceeded to		
<u>Thesium australe</u> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat
Austral Toauliax, Toauliax [15202]	Vullielable	likely to occur within area
		,
Reptiles		
Caretta caretta	Endongorod	Creation or anadica habitat
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<u>Chelonia mydas</u>		
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
		known to occur within area
Coeranoscincus reticulatus		
Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat
		known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat
	Ū	may occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat
		may occur within area
N. to fee down on the		
<u>Natator depressus</u> Flatback Turtle [59257]	Vulnerable	Species or species habitat
	Vullerable	may occur within area
		, ,
Listed Migratory Species		
		[Resource Information]
	the EPBC Act - Threatener	[Resource Information]
* Species is listed under a different scientific name on		Species list.
	the EPBC Act - Threatened Threatened	
* Species is listed under a different scientific name on Name		Species list.
* Species is listed under a different scientific name on Name <mark>Migratory Marine Birds</mark>		Species list. Type of Presence Species or species habitat
* Species is listed under a different scientific name on Name Migratory Marine Birds <u>Apus pacificus</u>		I Species list. Type of Presence
* Species is listed under a different scientific name on Name Migratory Marine Birds <u>Apus pacificus</u> Fork-tailed Swift [678]		Species list. Type of Presence Species or species habitat
* Species is listed under a different scientific name on Name Migratory Marine Birds <u>Apus pacificus</u>		Species list. Type of Presence Species or species habitat
* Species is listed under a different scientific name on Name Migratory Marine Birds <u>Apus pacificus</u> Fork-tailed Swift [678] <u>Ardenna grisea</u>		Species list. Type of Presence Species or species habitat likely to occur within area
* Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas 		A Species list. Type of Presence Species or species habitat likely to occur within area Species or species habitat likely to occur within area
* Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] 		Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] 		Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat species or species habitat may occur within area Species or species habitat
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] Diomedea epomophora 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat may occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] Diomedea epomophora 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] Diomedea epomophora 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat may occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] Diomedea epomophora Southern Royal Albatross [89221] 	Threatened	Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat may occur within area
 * Species is listed under a different scientific name on Name Migratory Marine Birds Apus pacificus Fork-tailed Swift [678] Ardenna grisea Sooty Shearwater [82651] Calonectris leucomelas Streaked Shearwater [1077] Diomedea antipodensis Antipodean Albatross [64458] Diomedea epomophora Southern Royal Albatross [89221] Diomedea exulans 	Threatened	 Species list. Type of Presence Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area

Name	Threatened	Type of Presence
<u>Diomedea sanfordi</u> Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
<u>Macronectes giganteus</u> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<u>Macronectes halli</u> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche cauta</u> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<u>Thalassarche eremita</u> Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche salvini</u> Salvin's Albatross [64463]	Vulnerable	Species or species habitat likely to occur within area
<u>Thalassarche steadi</u> White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur within area
Migratory Marine Species		
<u>Caretta caretta</u> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<u>Dermochelys coriacea</u> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat may occur within area
<u>Eretmochelys imbricata</u> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat may occur within area
<u>Manta alfredi</u> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
<u>Manta birostris</u> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
<u>Natator depressus</u> Flatback Turtle [59257]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
<u>Cuculus optatus</u> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
<u>Hirundapus caudacutus</u>		

Name	Threatened	Type of Presence
		within area
<u>Monarcha melanopsis</u>		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat likely to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
<u>Myiagra cyanoleuca</u>		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<u>Calidris ferruginea</u>		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
<u>Gallinago hardwickii</u>		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
<u>Tringa nebularia</u>		
Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land	[Resource Information]
The Commonwealth area listed below may indicate the preser the unreliability of the data source, all proposals should be che Commonwealth area, before making a definitive decision. Con department for further information.	ecked as to whether it impacts on a
Name	
Commonwealth Land - Australian Telecommunications Comm	ission
Listed Marine Species	[Resource Information]
* Species is listed under a different scientific name on the EPE	C Act - Threatened Species list.
Name Threa	tened Type of Presence
Birds	

Name	Threatened	Type of Presence
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<u>Ardea alba</u>		
Great Egret, White Egret [59541]		Breeding known to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Calonectris leucomelas		
Streaked Shearwater [1077]		Species or species habitat may occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
<u>Diomedea exulans</u>		
Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<u>Diomedea gibsoni</u>		
Gibson's Albatross [64466]	Vulnerable*	Species or species habitat may occur within area
<u>Diomedea sanfordi</u>		
Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<u>Hirundapus caudacutus</u>		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor		
Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Macronectes giganteus		
Southern Giant-Petrel, Southern Giant Petrel	Endangered	Species or species

Name	Threatened	Type of Presence
[1060]		habitat may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat likely to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
<u>Myiagra cyanoleuca</u>		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur		
Fairy Prion [1066]		Species or species habitat likely to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
Puffinus griseus		
Sooty Shearwater [1024]		Species or species habitat likely to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur

Name	Threatened	Type of Presence
		within area
<u>Tringa nebularia</u>		
Common Greenshank, Greenshank [832]		Species or species habitat may occur within area
Reptiles		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<u>Chelonia mydas</u>		
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat may occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat may occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Susan Island	NSW
Regional Forest Agreements	[Resource Information]
Note that all areas with completed RFAs have been included.	
Name	State
North East NSW RFA	New South Wales

Invasive Species

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

[Resource Information]

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat known to occur within area
Mammals		
Bos taurus		
Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer		
Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette V Anredera, Gulf Madeiravine, Heartleaf Madeira Potato Vine [2643] Asparagus plumosus		Species or species habitat likely to occur within area
Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's C Creeper, Funnel Creeper [85119]	law	Species or species habitat likely to occur within area
Eichhornia crassipes		

Water Hyacinth, Water Orchid, Nile Lily [13466]

Name	Status	Type of Presence
Genista sp. X Genista monspessulana		habitat likely to occur within area
Broom [67538]		Species or species habitat may occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, La leaf Lantana, Pink Flowered Lantana, Red Flowe Lantana, Red-Flowered Sage, White Sage, Wild [10892] Pinus radiata	red	Species or species habitat likely to occur within area
Radiata Pine Monterey Pine, Insignis Pine, Wildir Pine [20780]	ng	Species or species habitat may occur within area
Rubus fruticosus aggregate		
Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron		
Willows except Weeping Willow, Pussy Willow ar Sterile Pussy Willow [68497]	nd	Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, K Weed [13665]	ariba	Species or species habitat likely to occur within area
Senecio madagascariensis		
Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]
Name		State
Clarence River Estuary		NSW
Cowans Pond		NSW

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and

- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites

- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-29.70248 152.87858

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales -Department of Environment and Primary Industries, Victoria -Department of Primary Industries, Parks, Water and Environment, Tasmania -Department of Environment, Water and Natural Resources, South Australia -Department of Land and Resource Management, Northern Territory -Department of Environmental and Heritage Protection, Queensland -Department of Parks and Wildlife, Western Australia -Environment and Planning Directorate, ACT -Birdlife Australia -Australian Bird and Bat Banding Scheme -Australian National Wildlife Collection -Natural history museums of Australia -Museum Victoria -Australian Museum -South Australian Museum -Queensland Museum -Online Zoological Collections of Australian Museums -Queensland Herbarium -National Herbarium of NSW -Royal Botanic Gardens and National Herbarium of Victoria -Tasmanian Herbarium -State Herbarium of South Australia -Northern Territory Herbarium -Western Australian Herbarium -Australian National Herbarium, Canberra -University of New England -Ocean Biogeographic Information System -Australian Government, Department of Defence Forestry Corporation, NSW -Geoscience Australia -CSIRO -Australian Tropical Herbarium, Cairns -eBird Australia -Australian Government – Australian Antarctic Data Centre -Museum and Art Gallery of the Northern Territory -Australian Government National Environmental Science Program -Australian Institute of Marine Science -Reef Life Survey Australia -American Museum of Natural History -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania -Tasmanian Museum and Art Gallery, Hobart, Tasmania -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

© Commonwealth of Australia Department of Agriculture Water and the Environment GPO Box 858 Canberra City ACT 2601 Australia +61 2 6274 1111

Appendix C Photographs





Plate 1 (PCT) 1209 Spotted Gum - Grey Box - Grey Ironbark dry open forest of the Clarence Valley lowlands of the NSW North Coast Bioregion



Plate 2 Areas of pasture on site with dense Blady Grass present in the depression.





Plate 3 A grove of Olive Trees (Olea sp.) located in the centre of the site.



Plate 4 Existing fencing present along the proposed rezoning delineation (western edge bordering Hampton Road).





Plate 5 Existing fencing present along the proposed rezoning delineation (northern edge).



Plate 6 Existing fencing present along the proposed rezoning delineation (southern edge).





Plate 7 Existing fencing present along the proposed rezoning delineation (in background) (eastern edge bordering the dwelling).



Plate 8 Koala scat present on site



Appendix D

Threatened Fauna Potential Occurrence Assessment





Scientific Name Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence	
	BC Act	EPBC Act	Species Profiles)	Habitat		
AVIFAUNA						
Anseranas semipalmata	Magpie Goose	V	-	Shallow wetlands (<1 m deep), large swamps and dams with dense growth of rushes or sedge.	Low. Habitat unsuitable.	Unlikely.
Anthochaera phrygia	Regent Honeyeater	CE	CE	Dry open forest and woodland with an abundance of nectar-producing eucalypts, particularly box-ironbark woodland, swamp mahogany forests, and riverine sheoak woodlands.	Medium. Potential foraging habitat for vagrant.	Low.
Artamus cyanopterus cyanopterus	Dusky Woodswallow	V	-	Woodlands and dry open sclerophyll forests, usually dominated by eucalypts; also recorded in shrublands, heathlands and various modified habitats.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.
Botaurus poiciloptilus	Australasian Bittern	E	E	Permanent freshwater wetlands with tall dense vegetation, particularly bullrushes and spikerushes.	Low. Habitat unsuitable.	Unlikely.
Burhinus grallarius	Bush Stone-curlew	E	-	Lightly timbered open forest and woodland, and partly cleared farmland with woodland remnants, preferring areas with dry leaf-litter, fallen timber and sparse ground cover.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible.
Calidris ferruginea	Curlew Sandpiper	E	CE	Tidal mudflats, sandy ocean shores and occasionally inland freshwater or salt-lakes.	Low	Unlikely



Scientific Name Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence	
	BC Act	EPBC Act	Species Profiles)	Habitat		
Calyptorhynchus Iathami	Glossy Black- Cockatoo	V	-	Sheoaks in coastal forests and woodlands, timbered watercourses, and moist and dry eucalypt forests of the coast and the Great Divide up to 1,000 m.	Low. Preferred feed trees <i>Allocasuarina</i> sp. not present on site.	Low.
Chthonicola sagittata	Speckled Warbler	V	-	Eucalyptus dominated communities with sparse shrubs and grassy understorey.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.
Climacteris picumnus	Brown Treecreeper	V	-	Eucalypt forests and woodlands of inland plains and slopes of the Great Dividing Range, and less commonly on coastal plains and ranges.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area. No impacts to habitat
Daphoenositta chrysoptera	Varied Sittella	V	-	Inhabits eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area. No impacts to habitat.
Ephippiorhynchus asiaticus	Black-necked Stork	E	-	Swamps, mangroves, mudflats, dry floodplains.	Low	Low.



Scientific Name Common Name	me Common Name Status		;	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
	BC EPBC Act Act Species Profiles)	Habitat				
Erythrotriorchis radiatus	Red Goshawk	CE	V	Open woodland and forest, preferring a mosaic of vegetation types, a large population of birds as a source of food, and permanent water. Typically found in riparian habitats along or near watercourses or wetlands. In NSW, preferred habitats include mixed subtropical rainforest, Melaleuca swamp forest and riparian Eucalyptus forest of coastal rivers. Population in NSW is naturally small (probably only one pair), and lies at extreme of the natural range of the species in Australia.	Low	Low.
Falco hypoleucos	Grey Falcon	E	V	The Grey Falcon is sparsely distributed in NSW, chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range.	Low	Low.
Glossopsitta pusilla	Little Lorikeet	V	-	Forages in open Eucalyptus forest and woodland; also feeds on Angophora, Melaleuca and other tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.
Haematopus longirostris	Pied Oystercatcher	E	-	Open beaches, intertidal flats, sandbanks and occasionally rocky headlands.	Low	Low
Haliaeetus leucogaster	White-bellied Sea- eagle	V	-	Coastal habitats and around terrestrial wetlands characterised by the presence of large areas of open water (larger rivers, swamps, lakes, ocean). Habitats may include freshwater swamps, lakes, reservoirs, billabongs, saltmarsh and sewage ponds in addition to bays and inlets, beaches, reefs, lagoons, estuaries and mangroves.	Low	Low.



Scientific Name	Common Name	Status	s	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Hieraaetus morphnoides	Little Eagle	V	-	Open eucalypt forest, woodland or open woodland. Sheoak or acacia woodlands and riparian woodlands of interior NSW are also used.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.
Irediparra gallinacea	Comb-crested Jacana	V	-	Among vegetation floating on slow-moving rivers and permanent lagoons, swamps, lakes and dams.	Low	Low.
Lathamus discolor	Swift Parrot	E	CE	On mainland Australia foraging occurs where eucalypts are flowering profusely or where abundant lerp infestations occur. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i> , Spotted Gum <i>Corymbia maculata</i> , Red Bloodwood <i>C. gummifera</i> , Forest Red Gum <i>E. tereticornis</i> , Mugga Ironbark <i>E. sideroxylon</i> , and White Box <i>E. albens</i> . Commonly used lerp infested trees include Inland Grey Box <i>E. microcarpa</i> , Grey Box <i>E. moluccana</i> , Blackbutt <i>E. pilularis</i> and Yellow Box <i>E. melliodora</i> .	Medium. Foraging habitat associated with feed trees (<i>Eucalyptus</i> sp.).	Low.
Lophoictinia isura	Square-tailed Kite	V	-	Dry woodland and open forest, particularly along major rivers and belts of trees in urban or semi-urban areas. Home ranges can extend over at least 100 km2.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.



Scientific Name	Common Name	Status	;	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	V	-	Drier open forests or woodlands dominated by box and ironbark eucalypts, and open forests of smooth-barked gums, stringybarks, ironbarks and tea-trees.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Multiple Bionet records within 10 x 10 km search area.
Ninox connivens	Barking Owl	V	-	Eucalypt woodland, open forest, swamp woodlands and timber along watercourses.	Medium. Foraging / nesting habitat associated with dry open forest and hollows.	Possible. No impacts to habitat.
Ninox strenua	Powerful Owl	V	-	Woodland and open forest to tall moist forest and rainforest. Requires large tracts of forest or woodland habitat but may also occur in fragmented landscapes.	Medium. Foraging / nesting habitat associated with dry open forest and hollows.	Possible. No impacts to habitat.
Pandion cristatus	Eastern Osprey	V	-	Littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. Typically occur in coastal areas but occasionally travel inland along major rivers. Wetland habitats include inshore waters, reefs, bays, coastal cliffs, beaches, estuaries, mangrove swamps, broad rivers, reservoirs and large lakes and waterholes.	Low	Low.



Scientific Name	Common Name	Status	5	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Petroica boodang	Scarlet Robin	V	-	Dry eucalypt forests and woodlands with an open and grassy understorey with few scattered shrubs. Both mature and regrowth vegetation are utilised; habitat usually contains abundant logs and fallen timber.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Several Bionet records within 10 x 10 km search area.
Petroica phoenicea	Flame Robin	V	-	Breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes; prefers clearings or areas with open understoreys. Breeding habitat is dominated by native grasses and the shrub layer may be either sparse or dense. In winter, birds migrate to drier more open habitats in the lowlands (i.e. valleys below the ranges, and to the western slopes and plains).	Low	Low (possibly only as vagrant.
Pomatostomus temporalis temporalis	Grey-crowned Babbler	V	-	Open woodlands dominated by mature eucalypts, with regenerating trees, tall shrubs, and an intact ground cover of grass and forbs.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Several Bionet records within 10 x 10 km search area.
Stagonopleura guttata	Diamond Firetail	V	-	Grassy eucalypt woodlands, open forest, mallee, temperate grassland, and secondary grassland derived from other communities, riparian areas, and sometimes in lightly wooded farmland.	Medium. Foraging / nesting habitat associated with dry open forest.	Possible. Several Bionet records within 10 x 10 km search area.



Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Stictonetta naevosa	Freckled Duck	V	-	Permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. In drier times they move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds.	Low	Low.
Turnix melanogaster	Black-breasted Button-quail	CE	V	Drier rainforests and vine scrubs, often in association with Hoop Pine and a deep moist leaf litter layer. During drought it may move to adjacent wetter rainforests.	Low	Unlikely
Tyto longimembris	Eastern Grass Owl	V	-	Areas of tall grass, including tussocks in swampy areas, grassy plains, swampy heath, cane grass, sedges on flood plains.	Low	Unlikely
Tyto novaehollandiae	Masked Owl	V	-	Dry eucalypt forest and woodlands.	Medium. Foraging / nesting habitat associated with dry open forest and hollows.	Possible.
INSECTA						
Argynnis hyperbius	Australian Fritillary	E	CE	Open swampy coastal habitat where the caterpillar's food plant, Arrowhead Violet (<i>Viola betonicifolia</i>) occurs.	Low	Low.
MAMMALS						



Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Aepyprymnus rufescens	Rufous Bettong	V	-	Tall moist eucalypt forest to open woodland with tussock grass understorey.	High. Foraging / nesting habitat associated with dense grassy understorey of Eucalypt forest.	Confirmed. Observed during site inspection. Several records within 10 x 10 km search area.
Chalinolobus nigrogriseus	Hoary Wattled Bat	V	-	Dry open eucalypt forest dominated by spotted gum, boxes and ironbarks. Also healthy coastal forests where Red Bloodwood and Scribbly Gum are common. Naturally sparse understorey is favourable.	Medium. Foraging / roosting habitat associated with dry open forest and hollows.	Possible.
Dasyurus maculatus	Spotted-tailed Quoll	V	E	Dry and moist eucalypt forests and rainforests, fallen hollow logs, large rocky outcrops.	Low	Low.
Micronomus norfolkensis	Eastern Coastal Free- tailed Bat	V	-	Occurs in dry sclerophyll forest and woodland east of the Great Dividing Range. Roosts in tree hollows.	Medium. Foraging / roosting habitat associated with dry open forest and hollows.	Possible.



Scientific Name	Common Name	Status	;	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Miniopterus australis	Little Bent-winged Bat	V	-	Moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. Generally found in well-timbered areas.	Medium. Foraging habitat associated with dry open forest and hollows.	Possible.
Miniopterus orianae oceanensis	Large Bent-winged Bat	V	-	Forest or woodland, roost in caves, old mines and stormwater channels.	Medium. Foraging habitat associated with dry open forest and hollows.	Possible.
Myotis macropus	Southern Myotis	V	-	Bodies of water, rainforest streams, large lakes, reservoirs.	Low	Low
Petauroides volans	Greater Glider	-	V	Ranges and coastal plains of eastern Australia, where it inhabits a variety of eucalypt forests and woodlands.	Low	Low
Petaurus norfolcensis	Squirrel Glider	V	-	Blackbutt, bloodwood and ironbark eucalypt forest with heath understorey in coastal areas, and box-ironbark woodlands and River Red Gum forest inland.	Medium. Foraging / nesting habitat associated with Ironbark and hollows.	Possible.
Petrogale penicillata	Brush-tailed Rock Wallaby	E	V	North-facing cliffs and dry eucalypt forest and woodland, inhabiting rock crevices, caves, overhangs during the day, and foraging in grassy areas nearby at night.	Low	Low.



Scientific Name	Common Name	Status	;	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Phascogale tapoatafa	Brush-tailed Phascogale	V	-	Drier forests and woodlands with hollow-bearing trees and sparse ground cover.	Medium. Foraging / nesting habitat associated with dry open forest and hollows.	Possible.
Phascolarctos cinereus	Koala	V	V	Appropriate food trees in forests and woodlands, and treed urban areas.	High. Koala feed trees present on site.	Confirmed. Scats observed during SAT assessment. Multiple records for the Waterview Heights area.
Planigale maculata	Common Planigale	V	-	Rainforest, eucalypt forest, heathland, marshland, grassland and rocky areas with surface cover close to water.	Low	Low.
Potorous tridactylus	Long-nosed Potoroo	V	V	Cool temperate rainforest, moist and dry forests, and wet heathland, inhabiting dense layers of grass, ferns, vines and shrubs.	Low	Low.
Pseudomys novaehollandiae	New Holland Mouse	-	V	Occurs in open heathlands, open woodlands with a heathland understorey, and vegetated sand dunes.	Low	Low.
Pteropus poliocephalus	Grey-headed Flying- fox	V	V	Subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops.	High. Species contributing nectar and pollen to the diet of Grey-headed flying foxes present on site.	Likely



Scientific Name	Common Name	Status	5	Habitat Requirement (EPBC Act SPRAT and/ or DPIE Threatened	Suitability of Site	Potential Occurrence
		BC Act	EPBC Act	Species Profiles)	Habitat	
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	-	Forages in a variety of habitats, roosts in tree hollows and buildings.	Medium. Foraging nesting habitat associated with dry open forest.	Possible. Several records within 10 x 10 km search area.
Scoteanax rueppellii	Greater Broad-nosed Bat	V	-	Woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest.	Medium. Foraging / roosting habitat associated with dry open forest and hollows.	Possible.
REPTILES						
Cacophis harriettae	White-crowned Snake	V	-	Low to mid-elevation dry eucalypt forest and woodland with well developed litter layer.	Low	Low.
Coeranoscincus reticulatus	Three-toed Snake- tooth Skink	V	E	Rainforest and occasionally moist eucalypt forest, on loamy or sandy soils.	Low	Low.
Hoplocephalus bitorquatus	Pale-headed Snake	V	-	Dry eucalypt forests and woodlands, cypress woodland and occasionally in rainforest or moist eucalypt forest. Favours streamside areas, particularly in drier habitats.	Low	Low.

