

# Western District Lakes Ramsar Site Boundary Description

Technical Report





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Cover photo: Lake Beeac, DEPI (2009).

# Contents

Introduction	1
.....	
Methodology of RAMSR 100 GIS layer boundary realignment	2
.....	
Location	3
.....	
Written description of the Western District Lakes Ramsar Site	4
.....	
References	7
.....	
Appendix 1	8
.....	
Appendix 2	9
.....	
Appendix 3	10
.....	

# Introduction

Ramsar wetlands are wetlands of international importance listed under the Convention of Wetlands (Rasmar, Iran 1971). Victoria has 11 wetlands listed under this convention including the Western District Lakes Ramsar Site.

It is a requirement of the Convention on Wetlands that a suitable map or maps are provided for each Ramsar wetland. The Department of Sustainability, Environment, Water, Population and Communities (SEWPAC), requires that both the written description and the spatial data of the Ramsar site boundaries are accurate. This information is used to gazette the boundary of the declared Ramsar wetland in accordance with Section 327 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Under the EPBC Act there are requirements for approval of activities which have, or are likely to have a significant impact on the ecological character of a declared Ramsar wetland. Precise identification of site boundaries helps to ensure that the exact boundaries of the Ramsar site can be easily identified, which can facilitate compliance with the EPBC Act as well as its effective enforcement.

The RAMSAR100 spatial dataset is a polygon layer that identifies each Victorian Ramsar area individually. RAMSAR100 was produced in conjunction with a report describing each Ramsar site (DCNR 1995). The Department of Environment and Primary Industries (DEPI) is the custodian of RAMSAR100. Most of the line work in RAMSAR100 was initially derived from 1:100,000 reference data. Because of its broader scale, this data was not always consistent with the cadastre and other more accurate features that have now been used to better define the majority of the Western District Lakes Ramsar Site. The updated spatial definition of Western District Lakes Ramsar Site is identified in a new RAMSAR25 spatial dataset.

# Methodology of RAMSR 100 GIS layer boundary realignment

An expert panel was convened to provide advice on the original intent of the Ramsar site boundaries based on the description in DCNR (1995) and the RAMSAR100 spatial dataset.

Certificates of Title were obtained as required from the Office of the Surveyor-General, Victoria, to further clarify the intent of the Ramsar boundary.

DEPI manages the RAMSAR100 spatial dataset. The RAMSAR100 boundary of the Ramsar site was used as a guide to select appropriate features from the following 1:25,000 datasets:

- Locality Boundaries – Vicmap Admin ( 26 February 2013)
- Public Land Management (PLM25) (15 June 2011)
- Township Boundaries – Vicmap Admin ( 6 February 2013)
- Road Network 1:25,000 - Vicmap Transport – Road (19 June 2012)
- Vicmap Property 1:25,000 (9 October 2012)
- Watercourse Network 1:25,000 – Vicmap Hydro (19 June 2012).

These datasets are represented in spatial products available through Vicmap<sup>1</sup> - <http://www.land.vic.gov.au>. Alternatively the Ramsar site boundaries can be viewed through the Department of Sustainability and Environments website (now DEPI), at Interactive Maps - <http://www.depi.vic.gov.au/about-dse/interactive-maps>.

High quality digital aerial photography was used where it was necessary to further clarify the original intent of the Ramsar boundary. The following images held by Land Victoria, DEPI was used:

- south-west\_2007dec17\_air\_vis\_35cm\_mga54.ecw.

The geographical coordinates (latitude, longitude) used in this report are based on Geographic Datum of Australia 1994 (GDA94). The hectares of the site presented in the body of the report have been calculated using Albers Equal Area projection and rounded to the nearest whole number (see Appendix 1 for the site's area calculated to two decimal places).

<sup>1</sup> Terms and conditions do apply.



# Location

The Western District Lakes Ramsar site is located on the Victorian Volcanic Plains between Winchelsea and Camperdown approximately 150 kilometres southwest of Melbourne (Figure 1). The site covers an area of 32,671 ha.

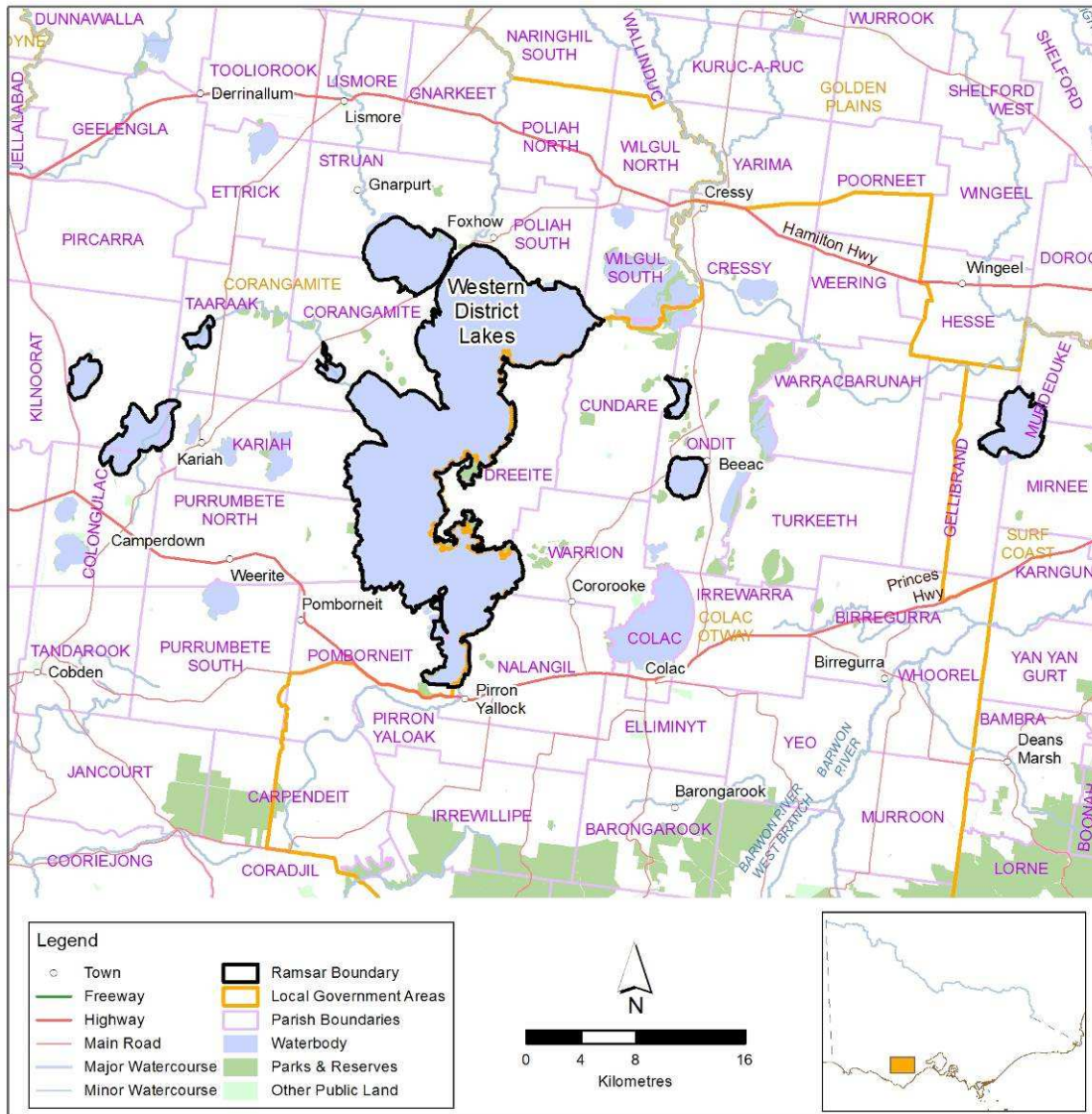


Figure 1: Western District Lakes Ramsar Site location.

# Written description of the Western District Lakes Ramsar Site

The Western District Lakes Ramsar site comprises nine separate lakes which are variously reserved as Nature Conservation Reserves, State Games Reserves and Lake Reserves with an island located within Lake Corangamite being privately owned. Points referred to in the description below are shown on the maps in Appendix 3. The generated boundary is represented by the spatial data in RAMSAR25 held in the DEPI Corporate Spatial Data Library. The datum used is Geographic Datum of Australia 1994(GDA94).

Lake name	Area (hectares)	Land tenure
Lake Bookar	480	State Game Reserve
Lake Colongulac	1,515	Lake Reserve
Milangil Lake	246	Nature Conservation Reserve
Lake Terangpom	219	Nature Conservation Reserve
Lake Gnarpurt	2513	Lake Reserve
Lake Corangamite	25,227	Lake Reserve
		Vaughan Island (Private land)
Lake Cundare	300	Nature Conservation Reserve
Lake Beeac	671	Nature Conservation Reserve
Lake Murdeduke	1,494	State Game Reserve

## Lake Bookar

The site is comprised of parcel 8D~5\PP2919.

## Lake Colongulac

The site is comprised of parcels 2~3\PP2840, 5~31\PP2919, 2~22\PP2411 and 1~22\PP2411. The site excludes part of parcel 2~22\PP2411 (the drainage channel) that runs south between points 38°11'52.872"S 143°8'35.765"E and 38°11'53.041"S 143°8'36.136"E.

## Milangil Lake

The site is comprised of parcel 3~4\PP3517.

## Lake Terangpom

The site is comprised of parcel 24A~1\PP2450.

## Lake Gnarpurt

The site is comprised of parcel 2~41\PP3509.

## Lake Corangamite

The boundary commences at the point closest to 38° 3' 15.81" S 143°26' 13.13" E (labelled as Point A on the map) on the western corner of parcel D\PP5298 at Foxhow. The boundary follows the northern edge of parcel D\PP5298 until it intersects at 38°3' 1.99" S 143°26' 48.7" E (Point B) with parcel 14A\PP5298. The boundary continues in an easterly direction along the northern edge of parcel 14A\PP5298, until it meets 38°3' 17.53" S 143°27' 54.13" E (Point C) at the south-east corner of parcel 1\TP170894, it then continues in a south-easterly direction along the eastern edge of parcel 15A~1\PP2450. The boundary continues along the eastern edge of parcel 15A~1\PP2450 in a generally southerly direction until reaching the point closest to 38°10' 55.22" S 143°28' 18.71" E (Point D) on the south-west corner of parcel 3\TP893544 at Dreeite South.

The boundary continues south westerly in a straight line to the point closest to 38°10' 55.81" S 143°28' 18.14" E (Point E) on the northern corner of parcel 2\PS418578.



From Point E the boundary continues in a south westerly direction along the eastern edge of parcel 15A~1\PP2450 until reaching the point closest to 38°12' 32.36" S 143° 26' 7.4" E (Point F) on the north-western corner of parcel 1\TP588115. The boundary continues in a southerly direction along the western edge of parcel 1\TP588115 to 38°12' 41.57" S 143°26' 6.71" E (Point G). From Point G the boundary continues a north-westerly direction in a straight line to 38°12' 41.12" S 143°26' 6.04" E (point H) on the corner of parcel 15A~1\PP2450. From Point H the boundary continues around the edge of parcel 15A~1\PP2450 to the point closest to 38°13' 32.75" S 143°25' 6.85" E (Point I) on the north-west corner of parcel 2001\PP2544. The boundary continues along the northern edge of parcel 2001\PP2544 to the point closest to 38°13' 31.86" S 143°25' 14.9" E (Point J) on the north-east corner of parcel 2001\PP2544. It then continues in a generally southerly direction along the edge of parcel 2001\PP2544 to the point closest to 38°13' 32.51" S 143°25' 14.78" E (Point K) on the corner of parcel 15A~1\PP2450. From Point K the boundary continues in an easterly direction to point 38°13' 32.64" S 143°25' 15.9" E (Point L) on the opposing corner of parcel 15A~1\PP2450 (next to the road reserve for Wool Wool Road, Wool Wool).

The boundary continues in a south-easterly direction along the edge of parcel 15A~1\PP2450 to the point closest to 38°15' 58.38" S 143°28' 53.57" E (point M) on the south-west corner of parcel 1\TP848357. From Point M the boundary continues in a southerly direction along the edge of parcel 15A~1\PP2450 to the point closest to 38°20' 32.92" S 143°25' 31.2" E (Point N) at the south-east corner of parcel 6A~22\PP5640 within the township of Pirron Yallock.

The boundary continues in a generally westerly direction to the point closest to 38°20' 33.36" S 143°25' 28.35" E (Point O) on the south-west corner of parcel 6A~22\PP5640. The boundary continues in a straight line to 38°20' 33.27" S 143°25' 27.53" E (Point P) on the eastern edge of parcel 5A~22\PP5640. The boundary then follows the edge of parcel 5A~22\PP5640 in a southerly direction (along the eastern edge of this parcel) and then in a westerly direction (along the southern edge of this parcel) to the point 38°20' 33.4" S 143°25' 22.66" E (Point Q) on the north-east corner of parcel 1\TP225960. From Point Q the boundary continues in a westerly direction along the southern edge of parcel 15A~1\PP2450 to point 38°20' 23.59" S 143°24' 8.44" E (Point R). From point R the boundary crosses Hawks Nest Road in a north-westerly direction to point 38°20' 21.38" S 143°24' 7.16" E (Point S) on the south-east corner of parcel 11A~A\PP3406.

The boundary continues a northerly, easterly then southerly direction around the edge of parcel 11A~A\PP3406 to 38°19' 59.21" S 143°24' 10.93" E (Point T). The boundary continues in a straight line (again crossing Hawks Nest Road) to the point 38°19' 59.36" S 143°24' 12.56" E (Point U) on the corner of parcel 15A~1\PP2450.

From point U the boundary continues in a generally northerly direction along the western edge of 15A~1\PP2450 to the point closest to 38°17' 56.32" S 143°24' 47.12" E (Point V) on the corner of parcel 2A~A\PP3406 (located in Pomborneit East). From Point V the boundary continues in a northerly direction along edge of parcel 2B~A\PP3406 and continues along the eastern edge of parcel 2B~A\PP3406. The boundary continues in an easterly direction along the southern edge of parcel A~A\PP3406 and then continues in a generally northerly direction along the western edge of parcel 15A~1\PP2450.

The boundary continues in a generally northerly direction along the western edge of parcel 15A~1\PP2450 to the point closest to 38°14' 53.37" S 143°20' 39.26" E (Point W) on the corner of parcel 47\PP3428 (located in Pomborneit North). The boundary continues in a straight line in a north-easterly direction to the point closest to 38°14' 52.91" S 143°20' 40.98" E (Point X) on the corner of parcel 49\PP3428.

The boundary then continues in a generally northerly direction along the western edge of parcel 15A~1\PP2450 to the point closest to 38°10' 35.84" S 143°21' 58.6" E (Point Y) on the north-eastern corner of parcel 1\TP84880. The boundary continues in a straight line in a north-westerly direction to the point closest to 38°10' 35.15" S 143°21' 58.28" E (Point Z) on the south-east corner of parcel 2\TP84880.

From Point Z the boundary continues in a generally northerly direction along the western edge of parcel 15A~1\PP2450 to the point closest to 38°8' 57.31" S 143°23' 2.43" E (Point AA) on the corner of parcel 2\PS540544 (located in Leslie Manor). The boundary continues in a straight line in a north-easterly direction to the point closest to 38°8' 56.36" S 143°23' 5.21" E (Point AB) on the corner of parcel 31A~1\PP2450. From Point AB the boundary continues in a generally easterly direction along the southern edge of parcel 2\PS540544 to the point closest to 38°8' 55.92" S 143°24' 6.82" E (Point AC) on the corner of 2\PS540544. The boundary continues in a straight line in a south-easterly direction to the point closest to 38°8' 56.44" S 143°24' 7.6" E (Point AD) on the corner of parcel 1\TP821246.

From Point AD the boundary continues in a south-easterly then a northerly direction along the western edge of parcel 15A~1\PP2450, returning to the start at Point A.

**Lake Cundare**

The site is comprised of parcel 122F\PP3353.

**Lake Beeac**

The site is comprised of parcel 70C\PP3353.

**Lake Murdeduke**

The site is comprised of parcel 53\PP3224.

# References

DEWHA (2011). Additional guidelines for written boundary descriptions for Australian Ramsar wetlands, September 2011, Department of the Environment, Water, Heritage and the Arts. Canberra.

DEWHA (2010). Guidelines for Written Boundary Descriptions for Australian Ramsar Wetlands, Version 1, 27 August 2010. Department of the Environment, Water, Heritage and the Arts. Canberra.

DEWHA (2008). Mapping Specifications for Australian Ramsar Wetlands. Module 1 of the National Guidelines for Ramsar Wetlands – Implementing the Ramsar Convention in Australia. Department of the Environment, Water, Heritage and the Arts. Canberra.

DCNR (1995). *Victorian Ramsar Sites: Definition and Boundary Clarification Project Report*. National Parks Service, Department of Conservation and Natural Resources. Victoria.

DNRE (2002). *Western District Lakes Ramsar Site: Strategic Management Plan*. Department of Natural Resources and Environment. Victoria.

# Appendix 1

## Lake hectares

Lake name	Albers equal area (hectares)
Lake Beeac	671.99
Lake Bookar	480.35
Lake Colongulac	1515.61
Lake Corangamite	25227.61
Lake Cundare	300.95
Lake Gnarpurt	2513.84
Lake Murdeduke	1494.67
Lake Terangpom	219.74
Milangil Lake	246.29
<b>Western District Lakes</b>	<b>32671.06</b>

## Appendix 2

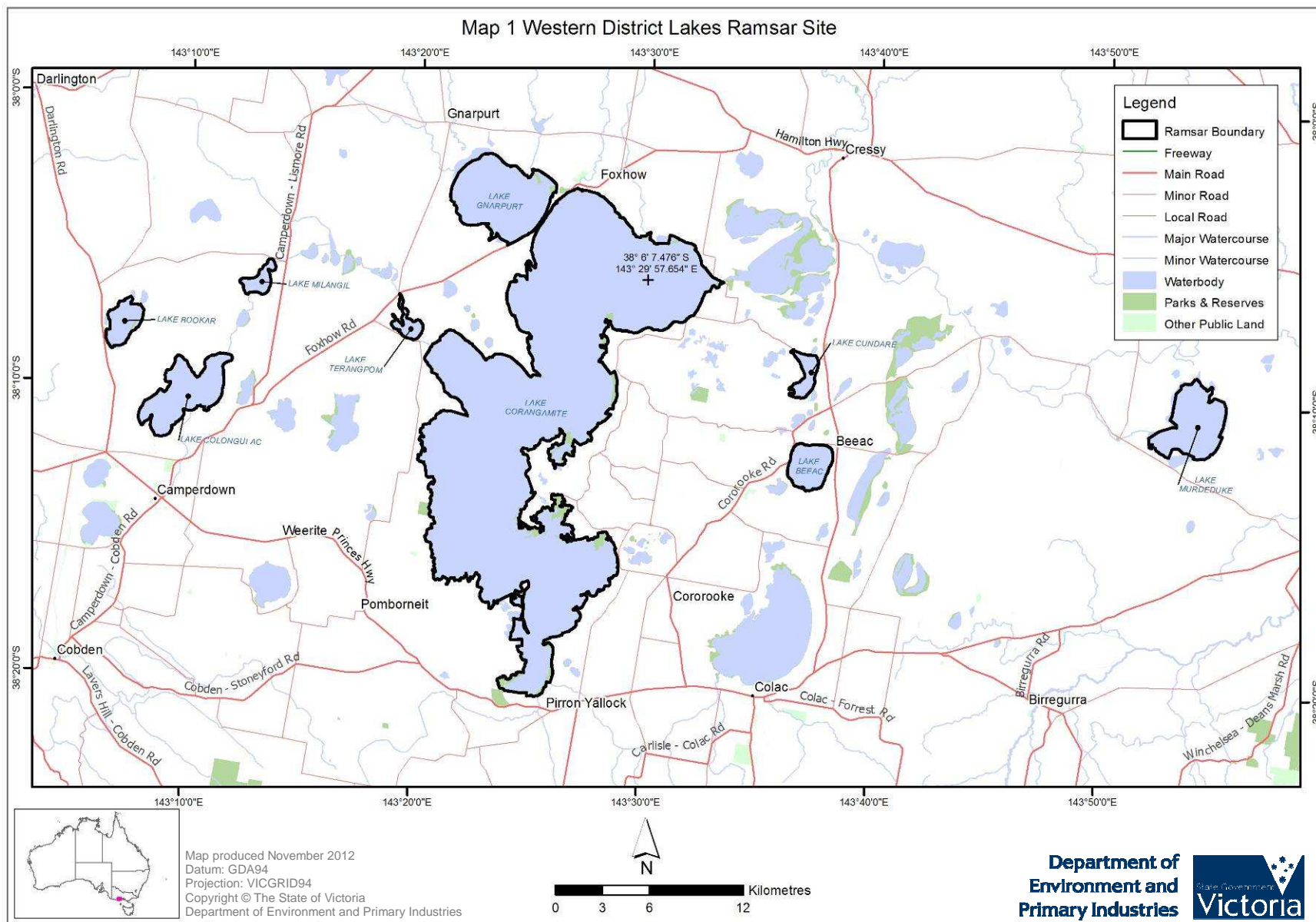
List of coordinates for Lake Corangamite

Point	Latitude	Longitude	Point	Latitude	Longitude
A	38°3' 15.81" S	143°26' 13.13" E	P	38°20' 33.27" S	143°25' 27.53" E
B	38°3' 1.99" S	143°26' 48.7" E	Q	38°20' 33.4" S	143°25' 22.66" E
C	38°3' 17.53" S	143°27' 54.13" E	R	38°20' 23.59" S	143°24' 8.44" E
D	38°10' 55.22" S	143°28' 18.71" E	S	38°20' 21.38" S	143°24' 7.16" E
E	38°10' 55.81" S	143°28' 18.14" E	T	38°19' 59.21" S	143°24' 10.93" E
F	38°12' 32.36" S	143°26' 7.4" E	U	38°19' 59.36" S	143°24' 12.56" E
G	38°12' 41.57" S	143°26' 6.71" E	V	38°17' 56.32" S	143°24' 47.12" E
H	38°12' 41.12" S	143°26' 6.04" E	W	38°14' 53.37" S	143°20' 39.26" E
I	38°13' 32.75" S	143°25' 6.85" E	X	38°14' 52.91" S	143°20' 40.98" E
J	38°13' 31.86" S	143°25' 14.9" E	Y	38°10' 35.84" S	143°21' 58.6" E
K	38°13' 32.51" S	143°25' 14.78" E	Z	38°10' 35.15" S	143°21' 58.28" E
L	38°13' 32.64" S	143°25' 15.9" E	AA	38°8' 57.31" S	143°23' 2.43" E
M	38°15' 58.38" S	143°28' 53.57" E	AB	38°8' 56.36" S	143°23' 5.21" E
N	38°20' 32.92" S	143°25' 31.2" E	AC	38°8' 55.92" S	143°24' 6.82" E
O	38°20' 33.36" S	143°25' 28.35" E	AD	38°8' 56.44" S	143°24' 7.6" E

## Appendix 3

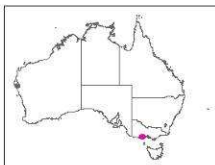
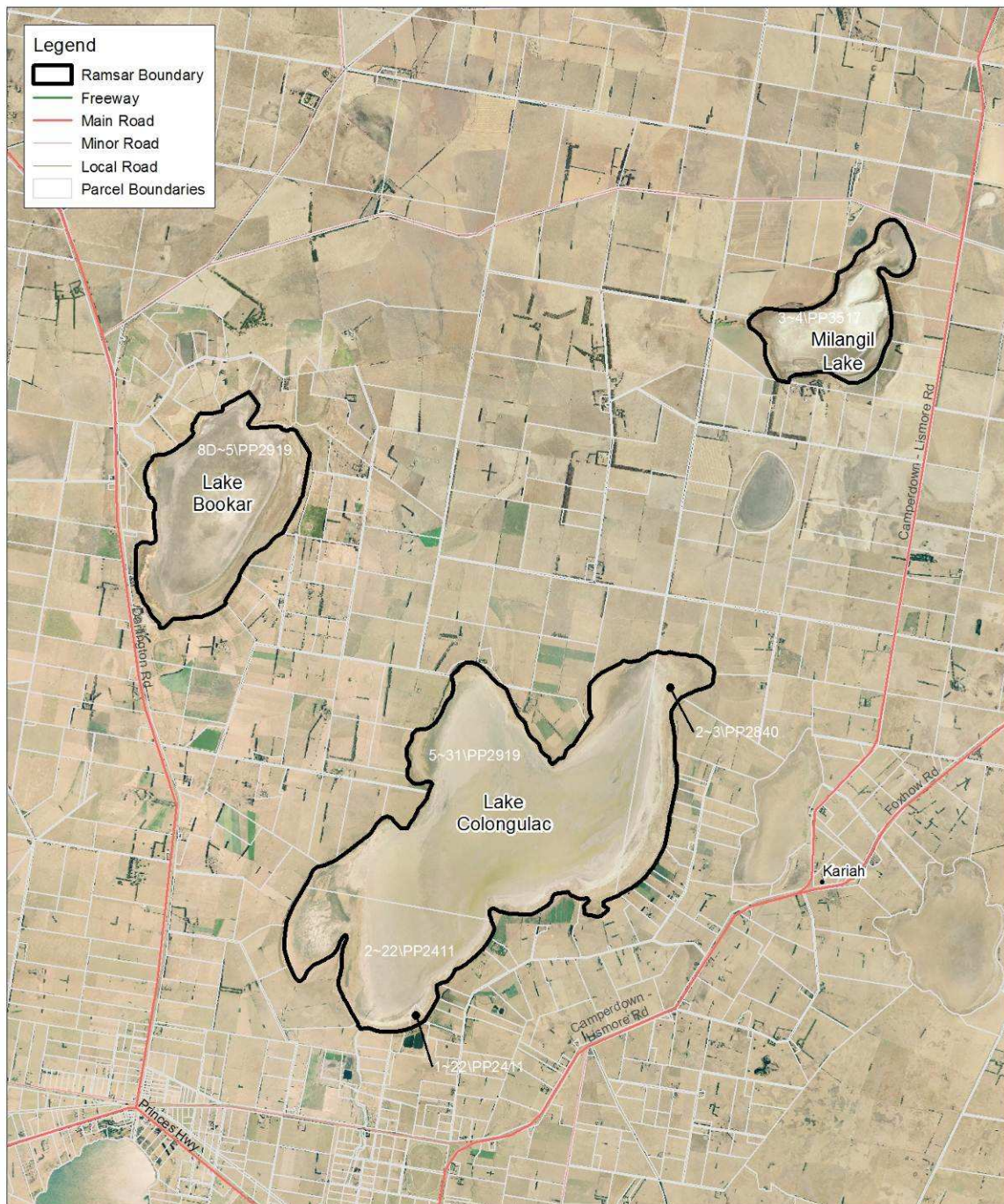
### Maps

Map no.	Description
1.	Overview map.
2.	Lake Bookar, Lake Colongulac and Milangil Lake.
3.	Lake Gnarpurt, Lake Terangpom and a portion of Lake Corangamite including points A to C and AA to AD.
4.	Portion of Lake Corangamite including points D to L, y to Z and AA to AD.
5.	Southern portion of Lake Corangamite, including points I to X.
6.	Lake Terangpom and Lake Corangamite (including points F to L, W to Z and AA to AD).
7.	Lake Beeac and Lake Cundare.
8.	Lake Murdeduke.





Map 2 Western District Lakes Ramsar Site



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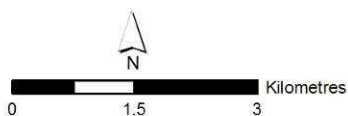




Map 3 Western District Lakes Ramsar Site



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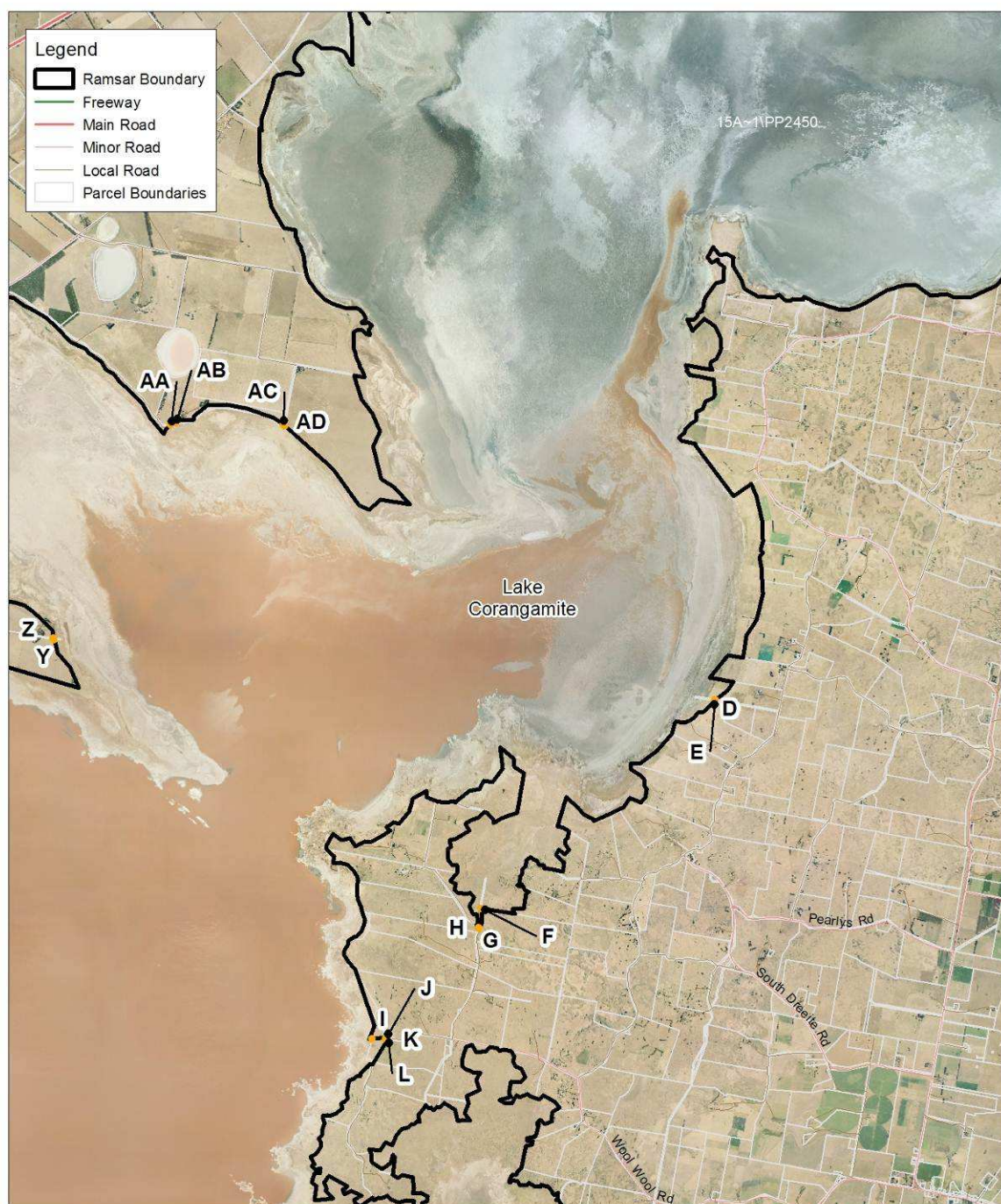


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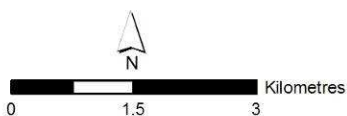




Map 4 Western District Lakes Ramsar Site



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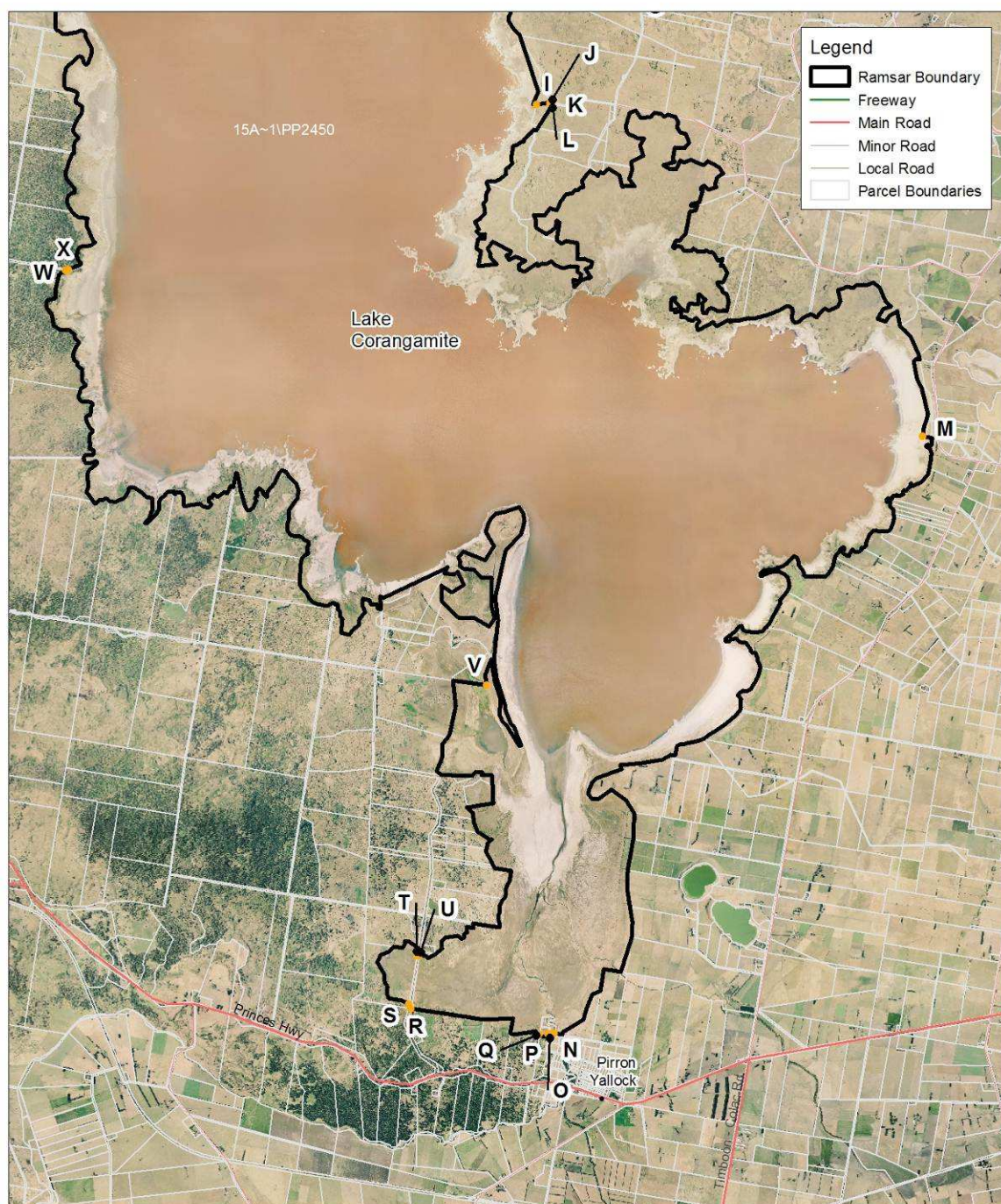


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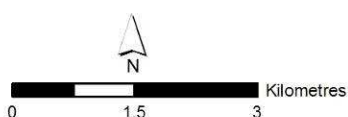




Map 5 Western District Lakes Ramsar Site



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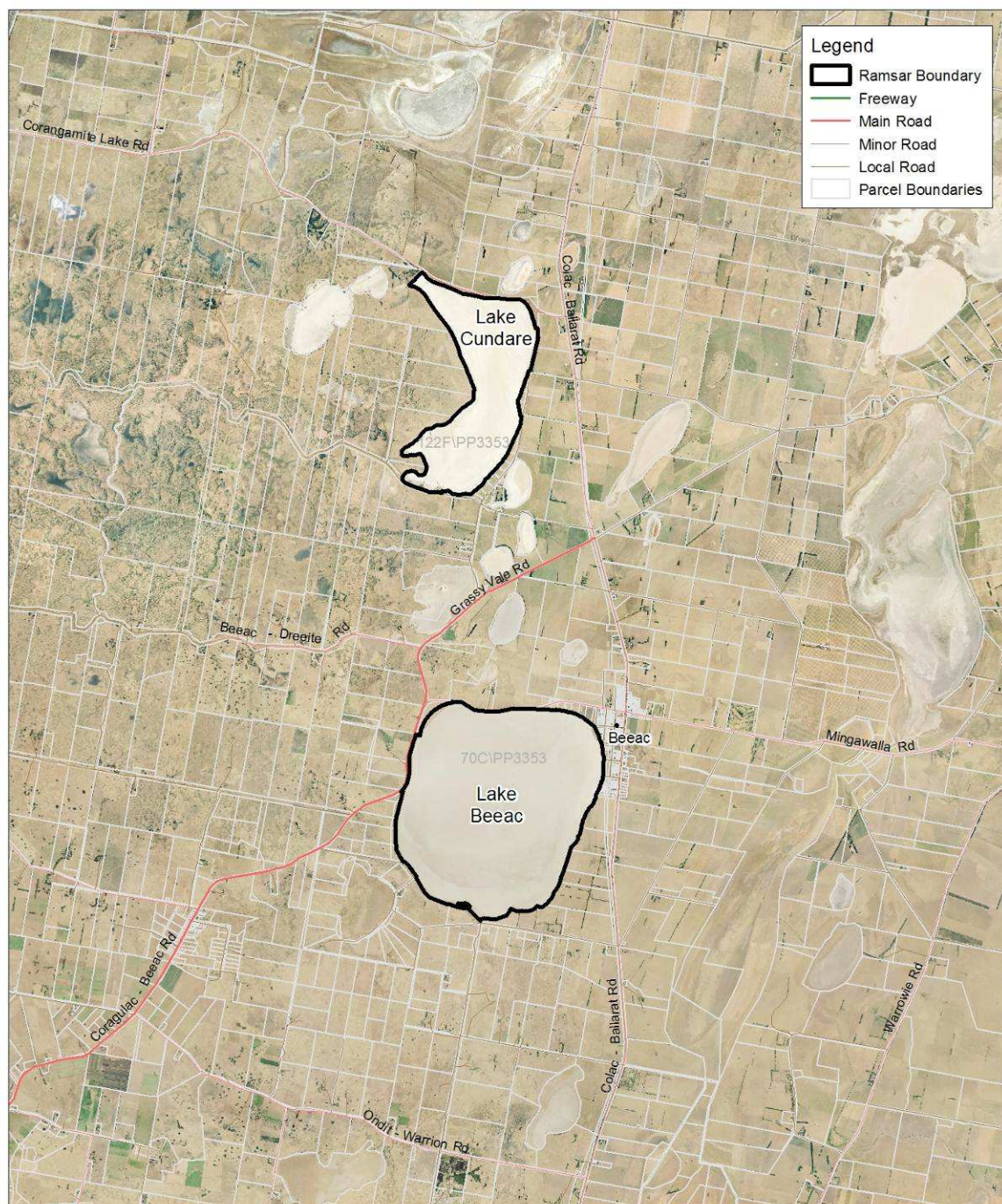


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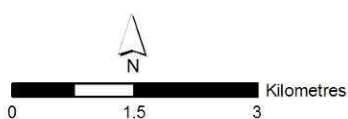




Map 7 Western District Lakes Ramsar Site



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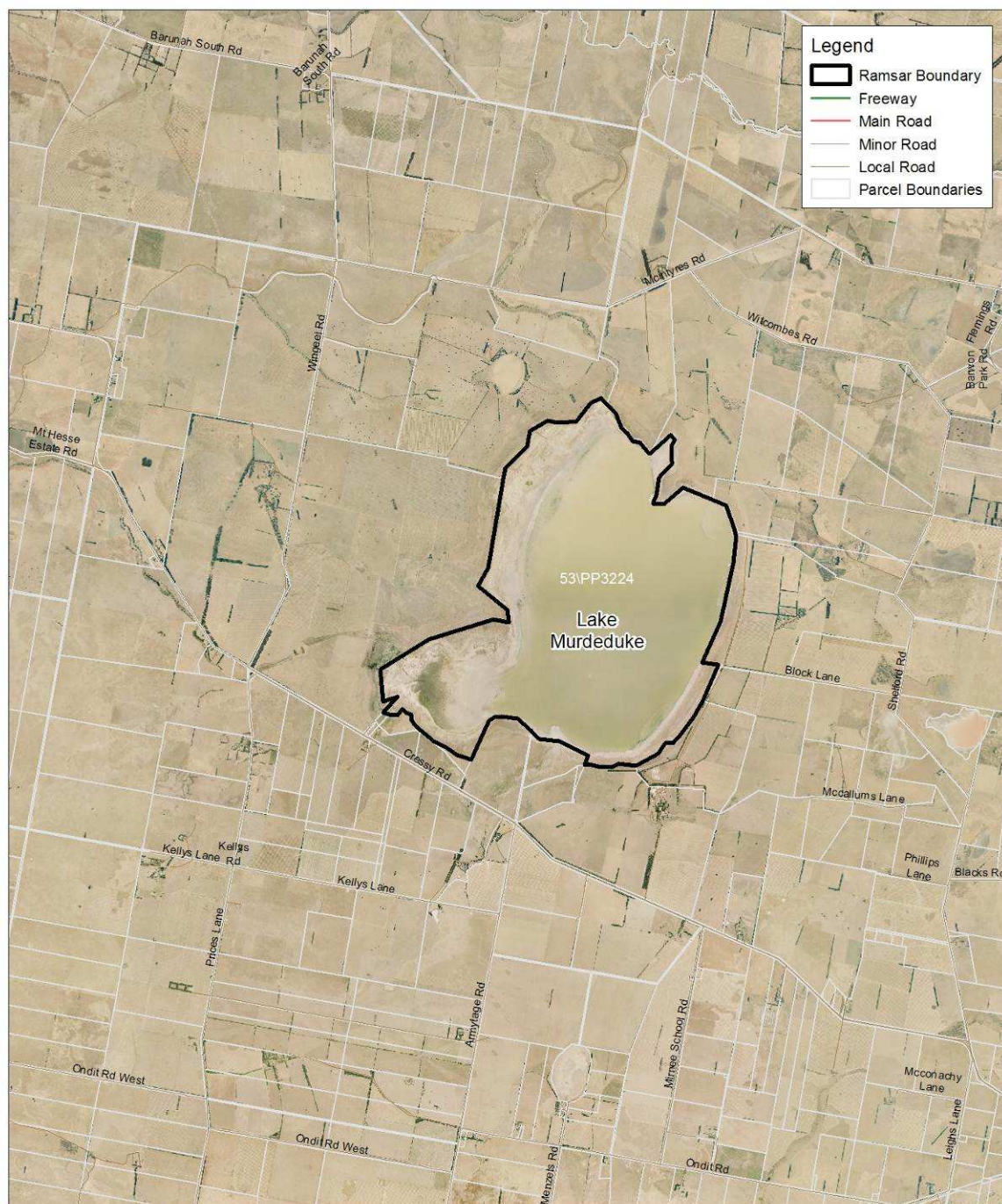


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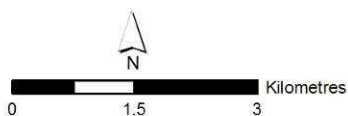




Map 8 Western District Lakes Ramsar Site



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