Lake Albacutya Ramsar Site Boundary Description

Technical Report



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Cover photo: River Red Gums at Lake Albacutya, DEPI.

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Introduction

Ramsar wetlands are wetlands of international importance listed under the Convention on Wetlands (Ramsar, Iran 1971). Victoria has 11 wetlands listed under this convention including the Lake Albacutya Ramsar Site.

It is a requirement of the Convention on Wetlands that a suitable map or maps are provided for each Ramsar wetland. The Australian Government Department of the Environment 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 Lake Albacutya Ramsar Site. The updated spatial definition of Lake Albacutya Ramsar Site is identified in a new RAMSAR25 spatial dataset.

Methodology of RAMSAR 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:

- Public Land Management (PLM25) (15 June 2011)
- Road Network 1:25,000 Vicmap Transport Road (19 June 2012)
- Vicmap Elevation DTM 20m and DTM 10m (2008)
- Watercourse Network 1:25,000 Vicmap Hydro (19 June 2012)

These datasets are represented in spatial products available through Vicmap1 - http://www.land.vic.gov.au. Alternatively the Ramsar site boundaries can be viewed through the Department of Environment and Primary Industries website, at Interactive Maps - http://www.dse.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 image held by Land Victoria, DSE was used:

• mallee-cma_2009jan14_air_vis_50cm_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).

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¹ Terms and conditions do apply.

Location

The Lake Albacutya Ramsar Site is located approximately 350 kilometres north-west of Melbourne in the Murray-Darling Depression bioregion. It is one of a series of terminal lakes on the Wimmera River which forms the largest landlocked drainage system in Victoria. Lake Albacutya covers an area of approximately 5,660 ha and is located within the Lake Albacutya Park which is scheduled under the Victorian *National Parks Act 1975*.

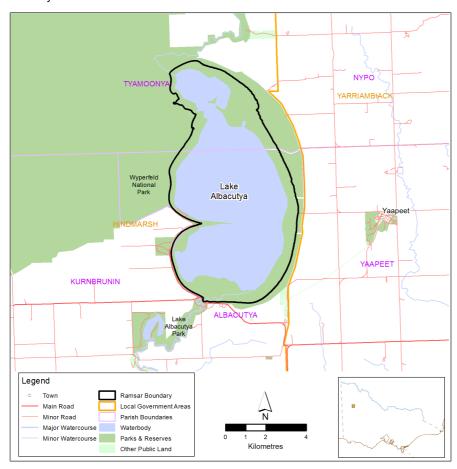


Figure 1: Locality map - Lake Albacutya Ramsar Site.

Written description of the Lake Albacutya Ramsar Site boundary

The boundary for the Lake Albacutya Ramsar Site follows the 72 metre Australian Height Datum (above sea level) contour line as generated from the Vicmap Elevation 20 metre Digital Terrain Model 2008 (dtm20m), (Map1). The Ramsar site is wholly contained by the parcels SPI 2001/3669, SPI 2002/2006 and SPI 2005/2943. This 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).

The following areas are excluded from this Ramsar site:

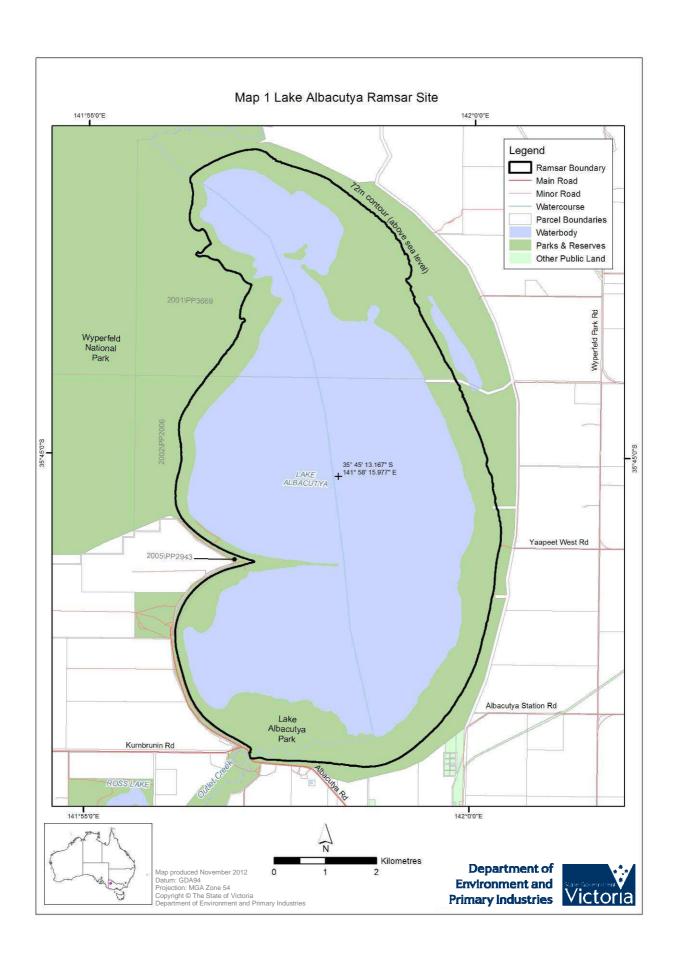
- the adjacent unnamed wetland that is located to the north east of Lake Albacutya and lies between the Ramsar site and the Wyperfeld Park Road;
- · the sections of Outlet Creek that are north and south of Lake Albacutya; and
- · Albacutya Road.

DTM Generation:

The DTM generation was completed by processing river basins (catchments), with each basin being further tiled to 40km square tiles. The methodology used both ANUDEM and TIN processes. The creation of specialized datasets, like the generation of height attributed ridge lines and stream networks assisted in controlling the DTM when using ANUDEM.

DTM Data Structure:

Vicmap Elevation DTM 20m and DTM 10m are a derived raster representing the elevation of Victoria derived from a variety of source datasets. The pixels are contained in a grid or image file. The value of the pixel represents the average height across the individual pixel. The combination of these pixels produces a surface representing height. Vicmap Elevation DTM 20m and DTM 10m consists of a wide variety of input source data varying in currency from 1974 to 2006.



References

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

DSE (2003). Lake Albacutya Ramsar Site: Strategic Management Plan. Department of Sustainability and Environment. Victoria.

Appendix 1

Area in hectares

Ramsar site name	Albers equal area (Ha)
Lake Albacutya	5659.37

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