



Department of
**Environment and
Conservation (NSW)**



The Vegetation of the Western Blue Mountains

including the Capertee, Coxs, Jenolan & Gurnang Areas

Volume 1: Technical Report

The Vegetation of the Western Blue Mountains

(including the Capertee, Cox's, Jenolan and Gurnang Areas)

Volume 1: Technical Report (Final V1.1)

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Authority**

Information and Assessment Section
Metropolitan Branch
Environmental Protection and Regulation Division
Department of Environment and Conservation
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Section Head, Information and Assessment

Julie Ravallion

Coordinator, Bioregional Data Group

Daniel Connolly

Vegetation Project Officer

Greg Steenbeeke

GIS, Data Management and Database Coordination

Peter Ewin

Kylie Madden

Greg Steenbeeke

Logistics and Survey Planning

Greg Steenbeeke

Field Surveyors

Greg Steenbeeke

Daniel Connolly

Elizabeth Magarey

Helen Achurch

Rebecca Allport

Colin Hunt

Venesser Oakes

Josh Madden

Aerial Photo Interpretation

Bob Wilson

Data capture by Pintech (Pty Ltd)

Data Analysis

Greg Steenbeeke

Daniel Connolly

Report Writing and Map Production

Greg Steenbeeke

Daniel Connolly

Bob Wilson

Report Formatting

Kerry Oakes

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DEC (2006) *The Vegetation of the Western Blue Mountains*. Unpublished report funded by the Hawkesbury – Nepean Catchment Management Authority. Department of Environment and Conservation, Hurstville.

Photos

Vegetation community profile photographs by Greg Steenbeeke unless otherwise noted. Feature cover photo by Greg Steenbeeke. All photographs are held by DEC. To obtain a copy please contact the Bioregional Data Group Coordinator, DEC Hurstville

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EXECUTIVE SUMMARY

This report describes the distribution and composition of the native vegetation communities for portions of the Oberon, Capertee and Lithgow areas within the Hawkesbury – Nepean catchment. It covers over 157 000 hectares of land. The project has been completed on behalf of the Catchment Management Authority with the aim to ensure that native vegetation mapping covers all unmapped areas outside of DEC managed lands in the catchment. The mapping provides a critical information resource for a wide range of support planning, management and monitoring for biodiversity objectives within the catchment. This project has sought to extend recently completed vegetation mapping work carried out across the South Coast and Central Tablelands (Tindall *et al.* 2004) as part of the statewide vegetation mapping program. A small reserve adjoining the mapping area that covers the Jenolan Caves Trust Reserve has been mapped and described within this report, although it was separately funded by the Oberon office of the Parks and Wildlife Division.

A comprehensive field survey program was carried out to augment the information gathered in earlier mapping projects in the Warragamba Special Area, Western Blue Mountains National Park, Wollemi National Park and the South Coast and Central Tablelands. An additional 302 floristic survey sites were collected during this project, bringing the total number in the study area and surrounding 20 kilometre buffer to 1257 full floristic sites. All vascular plants were identified and vegetation, soil and disturbance information were recorded and entered into an electronic database. This data was used to classify vegetation communities using quantitative analytical techniques. Fifty-seven vegetation communities have been identified and each described in separate profiles. Each profile describes the composition and structure of the vegetation, example locations, disturbance levels present and includes a photograph that is considered to be representative of the community.

A detailed 1:25 000 scale map of the vegetation communities of the study area has been completed. Although primarily intended for use in developing Property Vegetation Plans under the NSW Native Vegetation Act 2003, this data can now be widely applied to a number of uses ranging from environmental reporting, fire management planning, conservation assessments and field operations. This map was constructed using detailed Aerial Photograph Interpretation (API) of nominal 1:25 000 scale colour photography (1998 – 2002) in conjunction with environmental data layers that describe the patterns in geology, elevation, rainfall and aspect. Digital data layers are available for use in ARCView GIS, which describe the distribution of vegetation communities as well as other landscape features such as exposed rock and cleared land. The derived mapping can now be used to display vegetation communities, vegetation structure, disturbance, amount of rock present, understorey type, canopy density and tree species present. A score for mapping reliability for each polygon is also provided. This fine scale information has been collected to assist with site based assessments.

This study identified and described 19 vegetation communities not previously described by recent regional mapping (Tindall *et al.* 2004). Many are located within the Capertee Valley, a distinctive and unique area for flora within the catchment. The project also identified and mapped four Endangered Ecological Communities (EECs) listed under the NSW Threatened Species Conservation Act (1995). These are the Genowlan Point *Allocasuarina nana* Heathland, Newnes Plateau Shrub Swamp, White Box – Yellow Box – Blakely's Red Gum Woodland and Montane Peatlands and Swamps. There are also two EECs listed under the Commonwealth Environment Protection and Biodiversity Conservation Act (1999). These EECs are the Grassy White Box Woodlands and the Temperate Highland Peat Swamps on Sandstone. Twenty-two plant species that are listed under the NSW Threatened Species Conservation Act (1995) were recorded during project surveys.